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# SEED SERVICE

For the Tri-Cities and Vicinity

1924



Annual Catalog  
Brums' Seed Store

Davenport  
Iowa





## THIS CATALOGUE

in many ways is unlike most others. It has been written for Davenport and vicinity, and would be of little value in New York state. The aim has been to avoid generalities, such as are commonly found in seed catalogues that have been prepared for nation-wide distribution. In other words, it is a local seed catalogue for local people and local conditions.

## OUR BUSINESS

is seeds and service. It is more than merely a place where seeds are sold over the counter. We want it to be a place for information as well; where you may come for advice regarding the selection of varieties, the planting and growing of crops, control of plant enemies, and a hundred and one other things. Service, in our opinion, is an inseparable function in seed selling.

The seed business is decidedly technical. First of all it requires a first-hand acquaintance with hundreds of varieties of plants, vegetables, field crops, etc., each with its own peculiarities, its merits and demerits, methods of planting and tending, climatic adaptability, etc. To be sure a fair knowledge of these things can not be acquired in a day. The seed business covers a broad field and requires constant study and practical experience. It demands specialization.

With us it is a year-round business. True, the bulk of seeds are planted during a period of only four months. The seedsman, however, does not go on vacation for the rest of the year. During the summer months we devote considerable time to experimental work. We make it a point to visit trial grounds frequently and to call on local growers as often as possible during the growing season. By so doing we are securing valuable first-hand information as to variety preference, methods of planting and tending, etc. Conclusions arrived at in this way we are willing and anxious to pass on to our customers. It is a service that goes hand in hand with seed selling.

## OUR SEEDS

are grown under contracts. These contracts are placed with growers in various sections of the United States and certain foreign countries. We are sometimes asked where our seeds are grown, and why they are not grown locally. The explanation is simple. In the case of vegetables, some kinds thrive under certain conditions that would be entirely unfavorable for others. There is no one locality that is favored with universal soil and climatic conditions. They are therefore grown where they produce the best seed. For example, all our radish seed is Michigan grown. We believe there is none better. California also produces large quantities of radish seed and for less money, but unfortunately it is unsuitable for planting here. Such seed invariably produces big tops and pithy roots. On the other hand, California is the ideal place for lettuce, sweet peas, flowers, and certain other seeds. For the same reason our alfalfa seed comes from the Dakotas; potatoes from northern Minnesota; corn from Iowa; and so on. The seedsman who willingly or unknowingly disregards these facts

may do more harm than good. The responsible seedsman knows the proper source for every kind of seed, and accepts no other. He renders a service to those who entrust their seed purchases to him.

Testing for germination is equally important. We aim to give all our seeds a double test before they go out. The second test is not without a purpose. It serves as a check on the first, and unless the two correspond a third test becomes necessary. "Double Tested Seeds," printed on our seed bags, is not a meaningless phrase. It is another way of saying, "this seed will grow."

When all is said you must place a certain amount of confidence in the man from whom you buy your seeds. The seed is placed before you and you judge it only by its outside appearance. The inherent qualities are invisible. Where was it grown; is it true to name; will it grow; is it adapted to my own locality; will it produce the biggest and best returns? These are vital questions that you entrust to your seedsman. If you are deceived you can verify it after planting, but unfortunately too late.

## DAVENPORT

is surrounded by one of the richest agricultural regions of the central states. Our soils here are capable of producing yields that are second to none. The importance of good seed therefore is self evident. To plant high priced lands to questionable seeds is indeed a gross error. Our purpose as seedsmen is to eliminate all risks in your seed plantings. We are making an honest endeavor to supply you with seeds that not only will grow but that also are best adapted to your community, and will produce maximum returns. We believe in the seed business; we believe that a reputable seed store in Davenport is a community service. Our desire is to prosper on merit and in this spirit we solicit your cooperation and support.

We are now entering our third season of seed service in Davenport. We can not boast of a record covering many years. During these few years our business has shown a phenomenal growth. We like to think of this growth in terms of satisfied customers.

## LET US COOPERATE

We are eager to cooperate with you. If we can assist you in your planting problems, we assure you it will be a pleasure. On the other hand, we like to have your ideas also. Exchanging ideas is always a good thing. Let us know how our seeds are doing. If you like our seeds and service, tell us about it. Nothing is more gratifying to us than to know that you are well pleased. If you don't like our methods or if something didn't do well, tell us that too. We make mistakes sometimes. But we want to know about them so that we may have a chance to correct them and to prevent their reoccurring.

We wish to take this opportunity to thank those who so generously patronized us during our first two years in Davenport. We hope it is only the beginning of long and pleasant relations.

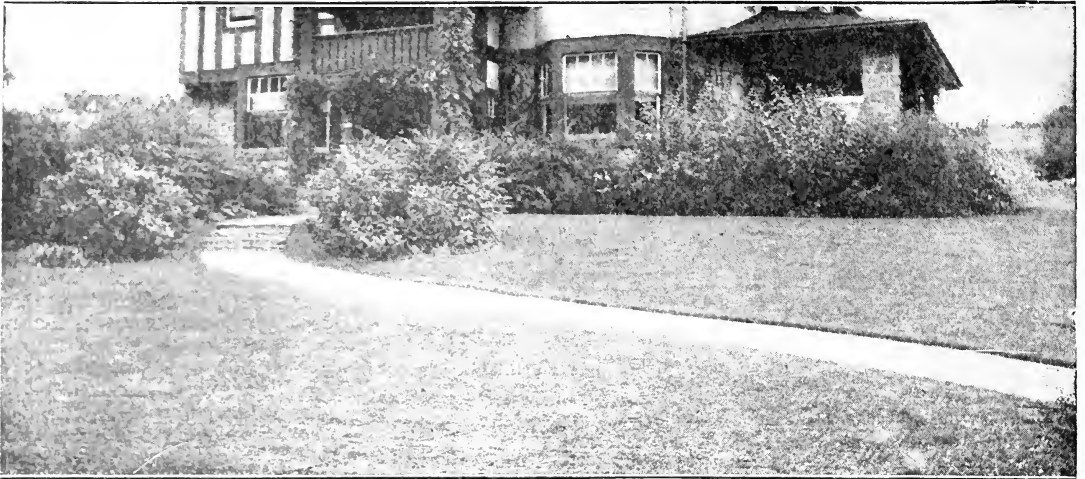
As seedsmen and friends, we are  
Sincerely,

BRUNS' SEED STORE.



Manager.

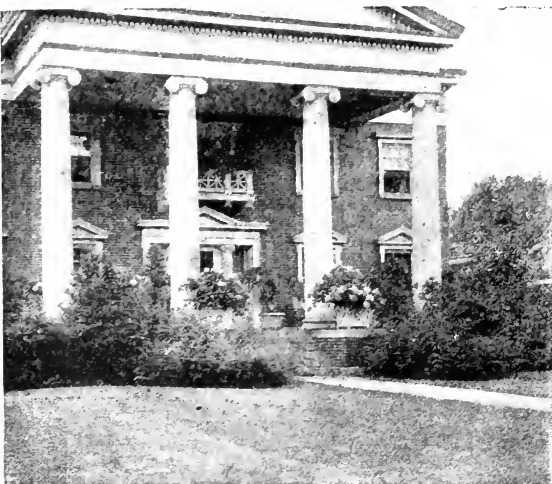
# Bruns' High Grade Lawn Grass



It Takes More Than a House to Make a Home—The Lawn Is Half of It.

Our lawn grasses are scientifically prepared. The grasses that make up our mixtures are not simply thrown together in haphazard fashion, but according to formula. Every grass is put in for a purpose and in proper proportion. Our formulas are the outcome of numerous tests and close observations of actual results. The object in mind has been to produce a lawn combining dense growth, fineness of texture, pleasing color, and permanency. During the past season we furnished grasses for approximately two thousand lawns in the tri-cities. Reports from customers are gratifying.

We use nothing but the best grades of American and imported grasses in our mixtures. Seed mixtures often contain inferior qualities because there is less chance for detection. Such seed is light in weight, chaffy, and apt to be contaminated with weed seeds. Our lawn grasses are made up of solid, heavy seed and weigh 28 lbs. to the measured bushel. They are also free of weeds and high in germination.



## VELVETEEN

For Sunny or Slightly Shaded Places

This is the mixture we ordinarily recommend for all purposes except deeply shaded places, steep terraces, and a few other special conditions. It is our biggest seller because of its wide adaptability. It is compounded of several kinds of grasses in varying proportions according to a carefully worked out formula. VELVETEEN combines all things desired in a good lawn—quick results, smooth, velvety turfs, lasting effects. Ask for VELVETEEN.

## SHADY LAWN

Most grasses are unsuited to places where there is a dense growth of trees overhead keeping out the sunlight. A few grasses, however, are well adapted to just such places. These grasses we have blended into our SHADY LAWN. We urge the use of this mixture for shaded spots.

## TERRACE LAWN

Terraces require grasses with strong spreading roots that will hold the soil and prevent washing during heavy rains. In seeding steep embankments, it is important, however, that conditions are favorable for a few weeks after sowing the seed. This will give the roots a start and when once started your terrace is permanently established. Better terraces are usually obtained from seedings than by sodding, and at less expense.

Some of the grasses that go into our TERRACE LAWN mixture are very scarce and costly. The prices may, therefore, seem high. There are cheaper terrace mixtures on the market, but this is impossible where those grasses with real terrace making qualities are present.

## LAWN FERTILIZERS

Lawn soils are often lacking in plant foods. A top dressing of a good lawn fertilizer well raked into the soil will produce a darker green and more vigorous growth.

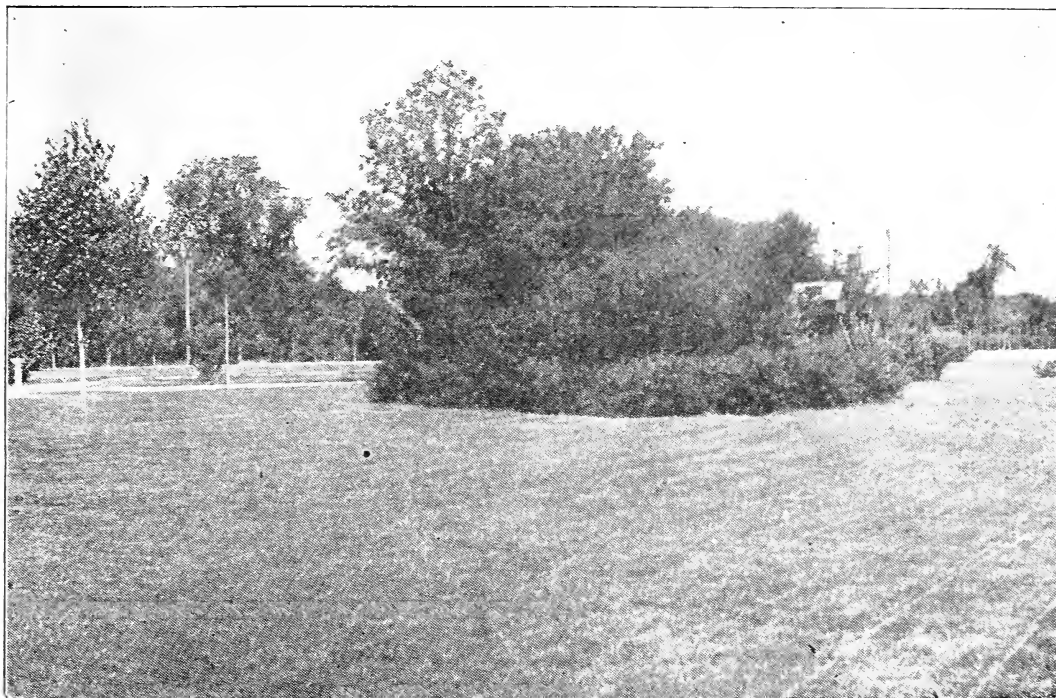
**PULVERIZED SHEEP MANURE**—Use 6 to 10 lbs. per 100 square feet.

**SPECIAL LAWN FERTILIZER**—Clean and odorless. High analysis.

**RAW BONE MEAL**—Apply at rate of 6 lbs. to 100 square feet.

**LAWN LIME**—Not a fertilizer but just as essential. Overcomes acidity. Use 20 lbs. to 100 square feet. 20 lbs., 30c; 100 lbs., 90c.

Fertilizer Prices on Page 38.



## KENTUCKY BLUE GRASS

This is more commonly used for lawn making than any other grass, and is an important ingredient in most lawn grass mixtures. It is slow to get started but very lasting when once established. Because of its fine texture and rich

green color it holds front rank among lawn grasses.

Blue Grass is marketed according to weight, ranging from 15 to 23 pounds per bushel. The lighter weights contain large quantities of chaff and immature seed which, of course are worthless. They are also low in germination and frequently badly contaminated with weed seeds. We use nothing but 21 and 23 pound seed in all our mixtures. Such seed commands a higher price but is by far the cheapest in the end.

## HOW TO MAKE OR RENOVATE A LAWN

The most important work in connection with the making of a lawn is the preparation of the seed bed. First add a liberal amount of good fertilizer, for which purpose we recommend pulverized sheep manure or a special commercial lawn fertilizer. Work the ground thoroughly until finely pulverized, the finer the better, thereby mixing the fertilizer into the soil, and at the same time producing the ideal seed bed. Sow the seed thickly, on new lawns at the rate of one pound to 350 square feet. This may seem heavy but is none too much. It doesn't pay to skimp on the seed. After seeding, cover the seed lightly, not deeply, by raking. Go over with a roller to firm the soil and hasten germination. Water if necessary until well started.

To improve the stand in old lawns it is impossible to work the ground thoroughly before seeding if the old grass is to be preserved. A thorough raking before and after sowing the seed must suffice.

One pound to 500 square feet is usually about right, depending on the condition of the old stand. Firm the soil by rolling. A top dressing of lawn fertilizer if needed should be applied before raking and seeding.

**NOTE:** Lawn soils are often acid, so that grass will scarcely grow. To overcome this, apply lime dust at the rate of 20 pounds to 100 square feet. We can furnish this at 1½ cents per pound or 90 cents per hundred pounds.

## WHITE DUTCH CLOVER

Frequently used in lawn making. We have just one grade—high in purity and germination.

## CONDITIONAL PRICES OF LAWN GRASSES

This book goes to press in the fall at which time spring prices are unknown. The prices as shown below are therefore subject to change, and we reserve the right to raise or lower as the market fluctuates. You can depend on our prices being consistent with quality. We guarantee them as low as any where value is considered. Prices higher than ours are unnecessary.

**VELVETEEN**—Lb., 50c; 5 lbs., \$2.35; 10 lbs., \$4.50.

**SHADY LAWN**—Lb., 55c; 5 lbs., \$2.50.

**TERRACE LAWN**—Lb., 90c; 5 lbs., \$4.25.

**KENTUCKY BLUE GRASS**—Lb., 50c; 5 lbs., \$2.35; 10 lbs., \$4.50.

**WHITE DUTCH CLOVER**—Lb., 75c; 5 lbs., \$3.50.

Prices on large quantities for estates, parks, golf courses, etc., given on request.



## Garden Seeds

### WE RECOMMEND BULK GARDEN SEEDS

because they are cheaper and better. We have the colored packets also, but we urge you to let us weigh your seed out of bulk while you wait. No matter how small or large your order is—whether for ten cents or ten dollars—insist on seed right out of the bin. For this purpose we have installed the most modern seed cabinets, scales, and counters available. Since last season we have added a second complete unit of seed bins and counters to facilitate putting up orders and eliminate as much as possible the waiting of customers. For the handling of vegetable seeds we now have one of the best equipped seed stores in the country.

### THE VARIETIES WE CARRY

are those of proven merit only. No attempt whatever has been made to list in this catalogue, or to carry in stock, all the varieties of vegetable seeds in existence. Quite to the contrary, the object has been to eliminate as much as possible those varieties of minor importance, and to offer and recommend only such

kinds as we have found by experience to be the most dependable and best for this immediate vicinity.

### DESCRIPTION OF VARIETIES

Little effort or space has been given in this catalogue to the description of varieties. Lengthy descriptions are useful in mail order catalogues where orders are made up entirely by the aid of the catalogue. Such is unnecessary, however, where you go to the seed store in person to buy your seeds. It is part of our business to know which varieties will give you best results, and, if desired, the selection of varieties may be entrusted to us with the assurance that you will get the most dependable and best.

Those varieties which we consider best in their classes we have denoted with ❖. If you are not sure which varieties to choose, follow this symbol.

A complete list of Garden Seed prices will be found on pages 11 and 12 of this catalogue. Culture Directions on page 13.

### ASPARAGUS

❖**WASHINGTON RUST PROOF**—A new variety developed by the U. S. Department of Agriculture and is nearly rust free. Green. Fine flavor. Heavy yielder.

**COLUMBIAN MAMMOTH**—Good white variety.

**PALMETTO**—Standard, large, green variety.

### BEANS

Our beans are Michigan grown and are far superior to beans grown in western irrigated states. Michigan grown beans excel in fineness of quality and are the most prolific bearers.

#### GREEN POD BUSH BEANS

❖**STRINGLESS GREEN POD**—In many ways the best of the green pod bush beans. Early, heavy bearer, quality the best. Pods long, round, thick, and meaty. Bean dark brown.

❖**IMPROVED EARLY RED VALENTINE**—Very early, heavy yielder. Pod long and round. A good dependable variety.

**BLACK VALENTINE**—Pods semi-round; not quite so early as Red Valentine but somewhat longer pods.

**EXTRA EARLY REFUGEE**—Early; fine quality. Pods perfectly round. Bean dark speckled.



Washington Rust Proof Asparagus

COMPLETE CULTURAL DIRECTIONS FOR GROWING VEGETABLES ON PAGE 13

**ROUND YELLOW SIX WEEKS**—Early; round green pod. A good productive variety.

**GIANT STRINGLESS GREEN POD**—Makes very large pods of excellent quality. Fairly early. Fine for planting to succeed Stringless Green Pod.

**BOUNTIFUL**—A flat-podded bean. Stringless.

**DWARF HORTICULTURAL**—Late. Splendid variety for shell beans, or for using dry. Bean almost round; speckled.

### WAX POD BUSH BEANS

❖**IMPROVED GOLDEN WAX**—Most popular of all wax varieties. Excellent quality: pods golden yellow and very attractive; large and round, meaty; fine buttery flavor.

❖**PENCIL POD BLACK WAX**—One we recommend highly. Makes a perfectly round pod, very long, meaty and brittle. Heavy producer.

❖**WARDWELL'S KIDNEY WAX**—A very attractive yellow flat-pod bean. Big yielder, good quality.

**DAVIS WHITE WAX**—Rust resistant and very productive. A white-seeded variety. Can also be grown for ripe beans for cooking.

**WEBBER WAX**—A flat-podded stringless bean. Pod bright yellow and very attractive. Seed yellow and kidney shaped.

**RUST PROOF WAX**—Long yellow flat pod. Seed black.

### POLE BEANS

❖**KENTUCKY WONDER or OLD HOME-STEAD**—Best of all green pod pole beans. Pod round and often grows 10 inches in length. Bears for a long period.

**LONDON HORTICULTURAL**—Flat, green-podded pole bean. Seed round and speckled.

**CUT SHORT or CORN HILL**—Good for planting in corn. Green pod.

**KENTUCKY WONDER WHITE SEED-ED or BURGER'S STRINGLESS**—A pole variety good for green or ripe beans. Small white seed.

**KENTUCKY WONDER WAX**—Similar to Kentucky Wonder except that the pod is yellow instead of green and the seed is a lighter brown.

**GOLDEN CLUSTER WAX**—Pods grouped in clusters. Long, stringless pods of good quality. Seed white and almost round.

### BUSH LIMA BEANS

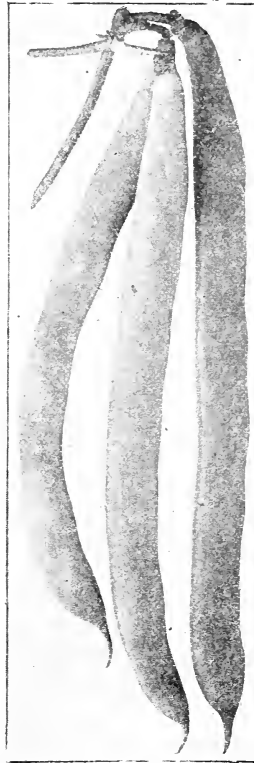
❖**IMPROVED BURPEE'S BUSH LIMA**—Large flat bean, and heavy producer. Considered by many the best.

❖**FORDHOOK BUSH LIMA**—Excellent quality. Bean quite thick and large. Good bearer.

❖**HENDERSON'S BUSH LIMA**—Bean much smaller than Burpee's or Fordhook but better flavored. Early.

### POLE LIMA BEANS

❖**KING OF THE GARDEN**—Pods contain



Improved Golden Wax



Stringless Green Pod

5 to 6 large beans. A vigorous grower and heavy yielder.

**EXTRA EARLY JERSEY**—Very dependable because of its earliness.

### SHELL BEANS

❖**NAVY**—Ours are hand picked and good quality.

**RED KIDNEY**—Fine for salads.

### BEETS

❖**DETROIT DARK RED**—Grown more than any other. Deep red; perfect globe shaped; small tap root. None better for bunching for market, or for canning for home use.

**CROSBY'S EGYPTIAN**—Good beet of the semi-flat type. Handsome and uniform in size and shape. Early.

**CRIMSON GLOBE**—Late main crop variety. Perfectly smooth and globe-shaped. Flesh deep red.

**EDMAND'S EARLY BLOOD TURNIP**—Round, dark red; uniform. Early. A good one.

### BEETS FOR STOCK—MANGEL WURZELS

❖**MAMMOTH LONG RED**—Enormous yielder. Large; dark red; very nutritious.

❖**GOLDEN TANKARD**—Highest in feeding value. Does not grow so long as Long Red, but more easily harvested. Yellow skin and flesh.

**GIANT ROSE HALF SUGAR**—Not so large as some but of better quality. High in sugar content. Best of all for poultry.

### SUGAR BEETS

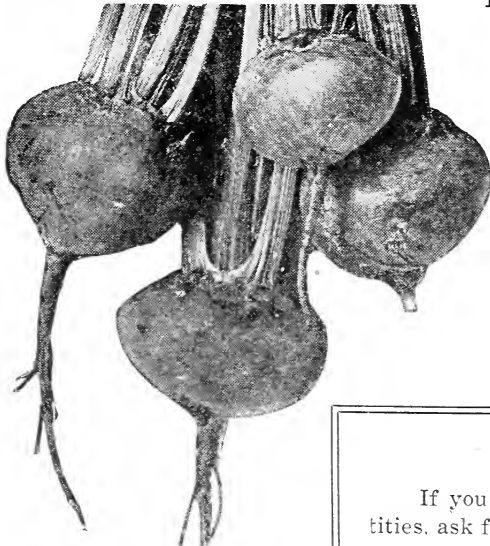
**WANLEBEN**—Does not produce so heavy as the mangels but better in quality. Excellent for the dairy.

**VILMORIN'S IMPERIAL**—Heavy yielder, and rich in sugar content.

### SWISS CHARD

**LUCULLUS**—Fine for greens. Resembles beets, but tops are used instead of roots.

Garden Seed Prices on Pages 11 and 12

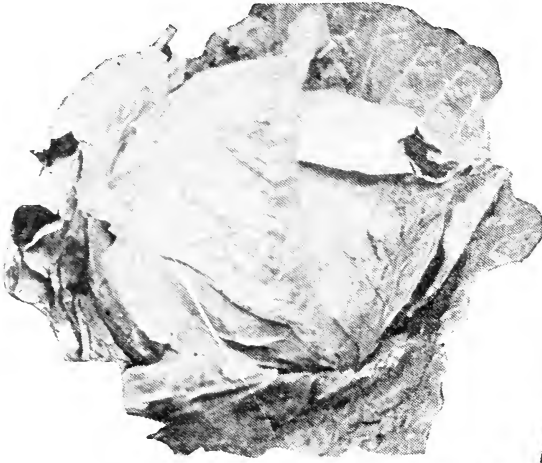


Detroit Dark Red

### Market Gardeners

If you are a market gardener or buy garden seeds in quantities, ask for our special MARKET GARDENERS' PRICE LIST.





Copenhagen Market Cabbage

## CAULIFLOWER

❖**EARLY SNOWBALL**—A favorite for market use. Heads compact and pure white. The earliest maturing strain of the true type of Snowball Cauliflower, and a good forcing variety that can be used as a late crop for winter.

❖**EXTRA EARLY DWARF ERFURT**—Few days later than Snowball. Dwarf.

❖**DRY WEATHER**—Will stand more drouth than any other. Second early.

## CELERY

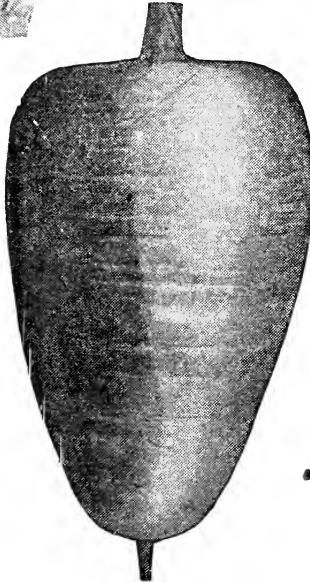
❖**GOLDEN SELF BLANCHING**—The leading variety. Produce dwarf, compact bunches. Stalks quite thick. Crisp and fine flavored. Our seed is French grown.

❖**GIANT PASCAL**—Good winter variety.

❖**WHITE PLUME**—Best of the white varieties. Is not a good keeper.



Golden Self Blanching Celery



Danver's Half Long Carrot

## CABBAGE

❖**EARLY JERSEY WAKEFIELD**—Very early; pointed head.

❖**CHARLESTON WAKEFIELD**—Same type as Jersey Wakefield but larger and one week later.

❖**COPENHAGEN MARKET**—Best of the early varieties. Extra early; perfectly round head; compact and solid as a rock; tender and fine grained. A general favorite in this locality.

❖**EARLY FLAT DUTCH**—An early variety of the flat-headed type.

❖**DANISH BALLHEAD** (Short Stem)—Best late, round head variety. An excellent keeper and much used for winter storing. Heads very hard and compact.

❖**PREMIUM LATE FLAT DUTCH**—Best of the late varieties in the flat-headed type.

❖**GLORY OF ENKHUIZEN**—Second early; round head.

❖**MAMMOTH RED ROCK**—A good red variety.

❖**SAVOY CABBAGE**—Improved American. Makes a compact growth. Outer leaves finely curled.

❖**CHINESE CABBAGE**—Pe-tsai. Used in salads, slaw, or cooked. Very delicious. Plant in fore part of August.

## CARROT

❖**DANVER'S HALF LONG**—Heavy producer; well-shaped root; flesh sweet and crisp. Used most of all.

❖**CHANTENAY**—Also a half-long variety, but more tapering than Danver's. An excellent carrot.

❖**EARLY SCARLET HORN**—A small carrot but early. A good one for early market.

❖**OXHEART OR GUERANDE**—Short thick variety, but reaches a good size.

❖**IMPROVED LONG ORANGE**—Roots very long, penetrating deeply into the soil. Good for table or stock. A little hard to harvest.

❖**LARGE WHITE BELGIAN**—Stock carrot. White with green top. Grows 12 to 18 inches long. Heavy producer.

## SWEET CORN

Listed in their order of earliness.

❖**PEEP O' DAY**—Small white variety.

❖**MAMMOTH WHITE CORY**—Extra early, but good sized. Very sweet.

❖**EARLY MINNESOTA**—Few days later than Cory, but larger.

❖**GOLDEN BANTAM**—Best of all early varieties. Yellow grained. Excellent quality.

❖**BLACK MEXICAN**—Grains are bluish purple in color. Very fine flavored.

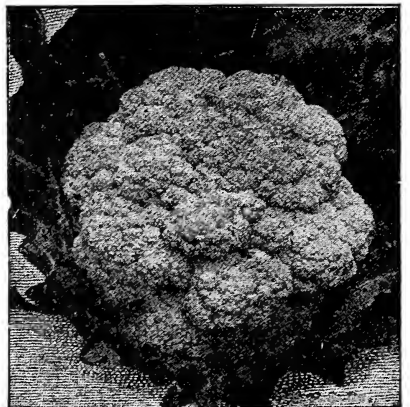
❖**BANTAM EVERGREEN**—Cross between Golden Bantam and Stowell's Evergreen. Retains the sweetness of the former and the size of the latter.

❖**COUNTRY GENTLEMAN**—Very deep, slender grain, arranged in zig-zag fashion instead of in rows. Excels in fine quality.

❖**STOWELL'S EVERGREEN**—Late; large eared. Best main crop variety for market or canning.

## CRESS

See Miscellaneous Vegetables, Page 10.



Early Snowball Cauliflower

## CUCUMBER

❖**CHICAGO PICKLING**—Best where intended for pickling small. Fruit sets on thick; very prolific.

❖**IMPROVED ARLINGTON WHITE SPINE**—Extra good variety for dill pickles or slicing.

**IMPROVED LONG GREEN**—Grown mostly for slicing purposes but good for pickling also, if picked small.

**DAVIS PERFECT**—Very dark green. Tapers on both ends. Grows to large size.

## EGG PLANT

❖**BLACK BEAUTY**—Earliest and best of all. Fruit large and uniformly dark purple in color.

**IMPROVED NEW YORK PURPLE**—Ten days later than Black Beauty.



Chicago Pickling

## ENDIVE

**GREEN CUELED**—Leaves deeply divided and wrinkled.

**BROAD-LEAVED BATAVIAN**—Leaves broad and slightly curled.

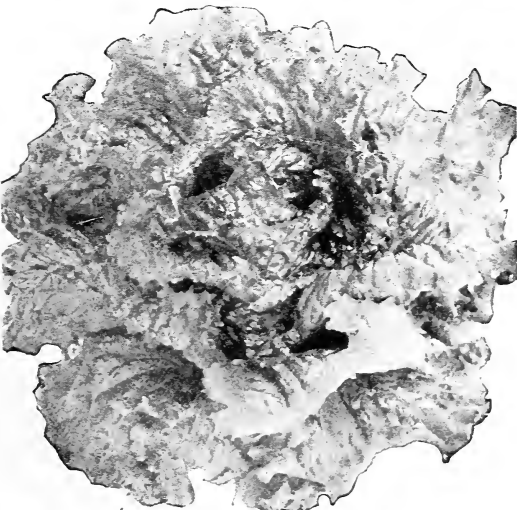
## KALE OR BORECOLE

**DWARF GREEN CURLED**—Makes a dwarf, spreading growth. Leaves finely curled; tender and fine flavored.

**TALL GREEN SCOTCH**—A tall variety, growing three feet high. Enormous yielder.

**KOHL RABI**—See Miscellaneous Vegetables, Page 11.

**LEEK**—See Miscellaneous Vegetables, Page 11.



Early Curled Simpson Lettuce



Picking Pickles

This patch, grown by Mr. Jas. Hirl, Davenport, R. I., consisting of 1 1-3 acres made a total yield of 575 bushels which were sold for the sum of \$566.00. A very good record. Seed bought here. Variety, Arlington White Spine.

**HERBS**—See Miscellaneous Vegetables, Page 10.

## LETTUCE

### LEAF VARIETIES

❖**BLACK-SEEDED SIMPSON**—A standard and dependable variety. Leaves broad, slightly curled, and golden yellow in color.

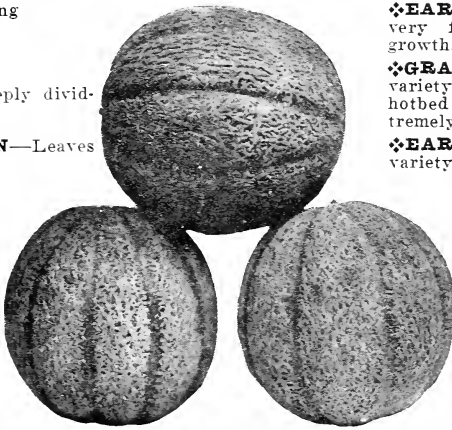
❖**EARLY CURLED SIMPSON**—Leaves very finely curled. Makes a compact growth. Quality as good as any.

❖**GRAND RAPIDS**—An excellent market variety; used most extensively of all for hotbed or greenhouse growing. Leaves extremely curly.

❖**EARLY PRIZEHEAD**—A brown-leaved variety. Name is misleading for this is strictly a loose leaf variety.

### HEAD VARIETIES

Head lettuce is considerably more difficult to grow successfully than leaf lettuce. To get it to head properly it is necessary to plant in well-manured, warm ground, and water liberally. The object is to produce a quick growth. Either of the following varieties is good: **IMPROVED HANSON; MAY KING; BIG BOSTON; CALIFORNIA CREAM BUTTER.**



Focky Ford Muskmelons

## MUSKMELON

### GREEN-FLESHED VARIETIES

❖**ROCKY FORD**—Standard, green-fleshed muskmelon. Medium sized; perfectly round; densely netted. Seed cavity small; flesh thick; excellent quality.

**EXTRA EARLY HACKENSACK**—Large sized; deeply ribbed.

**HONEY DEW**—Skin smooth. Flesh very sweet with a peculiar honey flavor.

### SALMON-FLESHED VARIETIES

❖**FOLLOCK 10-25**—A new variety of the Rocky Ford type. Uniform in size; deliciously flavored. An extra good one.

❖**TIP TOP**—Best of all for the market. Large sized and productive. Excellent quality.

**OSAGE**—Large, oval-shaped muskmelon. Skin green. Good quality.

**EMERALD GEM**—Round; deeply ribbed; slightly netted; dark green skin. Clear, salmon colored flesh.

**PAUL ROSE**—Flesh thick; orange in color. Slightly netted and ribbed. Round.

**BANANA**—Grows 20 to 25 inches long and 4 to 5 inches thick at widest part.

## WATERMELON

♦**TOM WATSON**—Long dark green melon. Rind thin but tough, making it a good shipper. Most popular of all.

♦**KLECKLEY SWEET, or MONTE CRISTO**—There is none better for home use; quality unsurpassed. Not a good market melon for the rind is too thin to permit handling. Of the long, green type.

♦**HALEERT HONEY**—Similar to Kleckley Sweet.

♦**SWEETHEART**—Oval shaped; quite large. Pale green color, with delicate veinings. Very sweet.

♦**COLE'S EARLY**—Not big but very early. Almost round. Color, light-green stripes alternating with darker shade of green.

♦**CITRON, RED SEEDED**—Used for preserves.

**MUSTARD**—See Miscellaneous Vegetables, Page 11.

**OKRA**—See Miscellaneous Vegetables, Page 11.

## ONION

Our onion seed is grown in Connecticut. It is higher priced than California grown seed, but the difference in results makes the difference in price negligible.

♦**SOUTHPORT RED GLOBE**—Dark red; perfectly globe-shaped. Best of the round red varieties

♦**SOUTHPORT YELLOW GLOBE**—A very attractive, golden yellow onion. Best yellow globe variety.

♦**SOUTHPORT WHITE GLOBE**—Pure silvery white. One of the best of the globe varieties. Large in size, fine in quality, bringing a ready sale anywhere. When sown thick they can be used for green or bunch onions. Our strain of this seed is of a fine quality.

♦**PRIZETAKER**—Three weeks later than the above. Round; straw-yellow; very large.

♦**LARGE RED WETHERSFIELD**—A flat winter variety. Matures late and makes very large onions. They are thick, the outer skin is a deep rich purplish red, smooth and glossy; flesh white, tinted pink and nearly as mild as the lighter skinned sorts. Its keeping qualities are unsurpassed.

♦**WHITE PORTUGAL, or SILVERSKIN**—For pickling purposes use this one.

♦**SCOTT COUNTY BOTTLENECK**—Apparently originated in this county and grown more extensively here than any other kind. A favorite with the onion growers of Pleasant Valley. Less subject to stiff-necks and scallions. Elongated in shape; golden-yellow in color; very mild and sweet. A good keeper. Our seed is local grown.



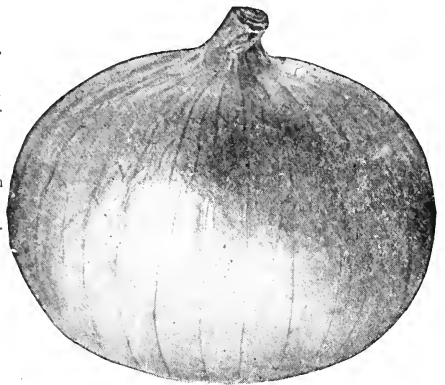
Alaska Peas

## PARSLEY

♦**CHAMPION MOSS CURLED**—Beautifully curled, deep green foliage. Used for garnishing and flavoring.

♦**PLAIN**—Leaves are not curled.

♦**TURNIP-ROOTED, or HAMBURG**—Roots used instead of the tops. Resemble parsnips.



Prizetaker Onion

## ONION SETS

♦**SCOTT COUNTY BOTTLENECK**—For either green bunch onions to pull early in the spring, or for ripe onions to harvest in the summer, this we find is superior to all others. Ask for this one.

♦**RED, WHITE, or YELLOW BOTTOM SETS**—These are very satisfactory for using green, but we do not recommend them for ripe onions, unless a flat onion is desired. These sets, although perfectly round when small, usually develop into flat onions as they mature.

## PEAS

We positively offer no seed peas grown in western irrigated states. All our peas are Michigan grown. Experience has proved that Michigan grown peas and beans are the most prolific bearers as well as the best quality.

♦**ALASKA**—Earliest of all. Smooth, round seed. Can be planted much earlier than the wrinkled varieties. Height 2 feet.

♦**FIRST AND BEST**—Similar to above. Also smooth, round seed, and about the same early. Height 22 inches.

♦**AMERICAN WONDER**—Early wrinkled pea. Very dwarf, growing only 10 to 12 inches high. Pods small.

♦**GRADUS, or PROSPERITY**—Best extra-early wrinkled pea. Pods large. Plant is a vigorous grower and reaches a height of 3 feet. An excellent market variety.

♦**LAXTONIAN**—Similar to Gradus but more dwarf. Pods extremely large.

♦**LITTLE MARVEL**—Extra-early wrinkled variety. Medium sized pods. Grows 12 to 15 inches high.

♦**THOMAS LAXTON**—Height 3 feet. Practically the same as Gradus.

♦**NOTT'S EXCELSIOR**—Vines about 15 inches high and require no support. Fairly good sized pods. Good quality.

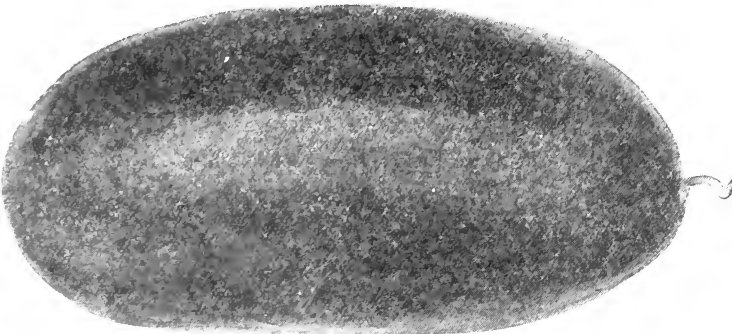
♦**PREMIUM GEM, or LITTLE GEM**—Pods rather small but closely set on the vine. A good, early, dwarf, wrinkled variety. 18 inches high.

♦**IMPROVED STRATAGEM**—An enormous yielder. Pods of immense size. Vines are strong and grow about 18 inches high.

♦**TELEPHONE**—Best of all the tall growing, late varieties. Grows 4 feet high; requires support. Outyields the more dwarf varieties.

♦**CHAMPION OF ENGLAND**—Tall growing variety, similar to Telephone. Height 4 feet.

♦**MELTING SUGAR**—An edible-pod variety. Pods tender and sweet, prepared same as string beans.



Tom Watson, Probably the Best Known Watermelon on the Market

## PRIZES ON VEGETABLES

### AT THE MISSISSIPPI VALLEY FAIR

Special Cash Premiums on Vegetables Grown from Bruns' Seed.

We are this year offering a special cash prize in addition to, and duplicating that offered by the Fair Association, on all classes of Vegetables and Potatoes listed below, winning the FIRST PREMIUM, and grown from seed purchased from us.

EVERYONE ELIGIBLE. PRODUCT MUST BE GROWN FROM BRUNS' SEED. ONLY REQUIREMENT PREMIUMS AWARDED BY US IN THE FOLLOWING CLASSES

	Fair Premium	Bruns' Premium		Fair Premium	Bruns' Premium
Best half bushel Early Ohio potatoes	\$5.00	\$5.00	Best peck tomatoes (purple)	3.00	3.00
Best half bushel Irish Cobbler potatoes	5.00	5.00	Best peck tomatoes (yellow)	3.00	3.00
Best peck table beets	3.00	3.00	Best peck tomatoes, small preserving, any color	3.00	3.00
Best peck turnips	3.00	3.00	Best dozen roasting ears	3.00	3.00
Best peck carrots	3.00	3.00	Best exhibit of radishes	3.00	3.00
Best peck peas in pod	3.00	3.00	Best three pumpkins	3.00	3.00
Best peck green beans	3.00	3.00	Best three watermelons	3.00	3.00
Best peck yellow beans	3.00	3.00	Best three squashes	3.00	3.00
Best peck lima beans	3.00	3.00	Best three muskmelons, salmon meated	3.00	3.00
Best peck cucumbers, small pickling	3.00	3.00	Best three muskmelons, green meated	3.00	3.00
Best peck cucumbers, (pickling), large	3.00	3.00	Best three heads cabbage	3.00	3.00
Best peck peppers	3.00	3.00	Best three heads cauliflower	3.00	3.00
Best peck tomatoes (red)	3.00	3.00	Best five egg plants	3.00	3.00

If you are not already an exhibitor at the fair, bring something this year. The reward is liberal. And remember! GROW YOUR VEGETABLES FROM BRUNS' SEED AND KILL TWO BIRDS WITH ONE STONE.

## PEPPER

**CHINESE GIANT**—Largest of all sweet peppers. Color dark green, turning red when ripe. Plant early for it requires a long growing season.

**RUBY KING**—Fruit grows about 6 inches long; flesh thick; very mild. Bright scarlet when ripe.

**BULL NOSE, or LARGE BELL**—Early but good sized. Short, blocky shape.

**PIMENTO**—Sweetest. Mango grown. Medium sized, tapering to a point.

**BLONG RED CAYENNE**—Very hot.

**RED CHILI**—Fruit similar to Cayenne, but smaller and hotter.

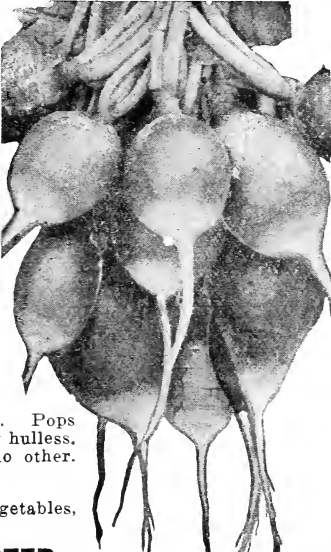
## POP CORN

**JAPANESE HULLESS**—Best for home use or for growing commercially. Pops very tender and crisp and almost entirely hullless. Poppers who have tried this will use no other. Ear short and blunt.

**RHUBARB**—See Miscellaneous Vegetables, Page 11.

**SALSIFY OR VEGETABLE OYSTER**—

See Miscellaneous Vegetables, Page 11.



## PUMPKIN

**LARGE CHEESE, or KENTUCKY FIELD**—Large, flat pumpkin. Buff colored. Very fine for pies.

**CONNECTICUT FIELD**—Best of all for stock. The kind used for planting in the corn. Grows large, round or oval shaped. Color deep orange.

**SMALL SUGAR**—Looks like Connecticut Field, except much smaller. Grows about 8 inches in diameter. Fine grained and sweet. Makes excellent pies. One of the best of the sweet pumpkins.

**MAMMOTH PRIZE**—Reaches an immense size if planted on rich ground, and watered liberally during dry weather. Requires a long growing season.

## RADISH

Our radish seed is strictly eastern grown. Radish seed grown in western states produce big tops and pithy roots.

**EARLY SCARLET TURNIP WHITE TIP**—Most popular of all for home or market. Very early; crisp and sweet. Attractive.

**EARLY SCARLET GLOBE**—Practically the same as Scarlet Turnip White Tip except that the entire root is bright scarlet.

**CRIMSON GIANT FORCING**—Best of all for forcing. Grows much larger than other round sorts, but does not become pithy. Color rich crimson and very attractive.

**WHITE ICICLE**—Best of the long varieties. Clear white; long and slender; very crisp and sweet. Preferred by many over the small round varieties because of the larger size.

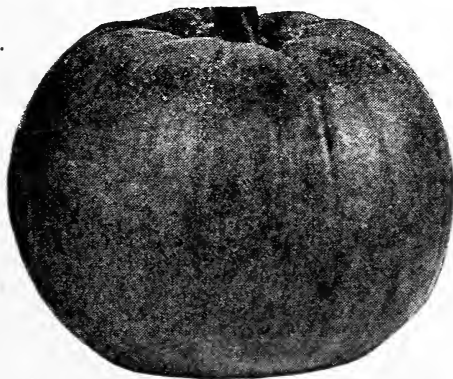
**FRENCH BREAKFAST**—Olive-shaped. Lower tip white; upper portion crimson.

**LONG SCARLET**—Long, bright scarlet, with small top.

**WHITE STRASSBURG**—Grows very large; oblong; snow white.

**LONG BLACK SPANISH**—A good winter variety. Skin black; flesh white.

**ROSE CHINA WINTER**—Long, bright rose colored. Winter variety.



Connecticut Field Pumpkin



Chinese Giant

## SPINACH

❖**BLOOMSDALE, SAVOY LEAVED** — Early. Leaves thick, dark green, curled and crumpled. A favorite for home or market.

**LONG STANDING**—Does not run to seed quickly.  
**ROUND THICK LEAF**—As name denotes, leaves are very thick and fleshy.

**NEW ZEALAND**—Will stand more heat and drouth than other kinds. Best for summer. Seed is very large and does not go so far as other varieties.

## SQUASH

❖**GENUINE GREEN HUBBARD**—Best of all winter varieties. An excellent keeper, and quality the best. Hard, dark green shell, heavily warted.

**GOLDEN HUBBARD**—Same as Green Hubbard, except color which is a rich, orange red.

**DELICIOUS**—Flesh thick; cooks dry; fine flavored. Fruit tapers to a point. Skin dark green. Fall or winter variety.

**WHITE BUSH SCALLOP**—An early, summer variety. Flat shaped with scalloped edge. Bush form, and can be grown in small space.

**GIANT SUMMER CROOKNECK**—Very productive and early summer squash. Shell hard and warty; rich orange color.

**BANANA**—Often 2½ feet long. Good quality. A winter squash.

**FORDHOOK**—About the size and shape of a ripe cucumber. May be used for summer or winter. Excellent quality.

## TOMATO

**EARLIANA**—Earliest of all. Fruit smooth but rather small. Bright red.

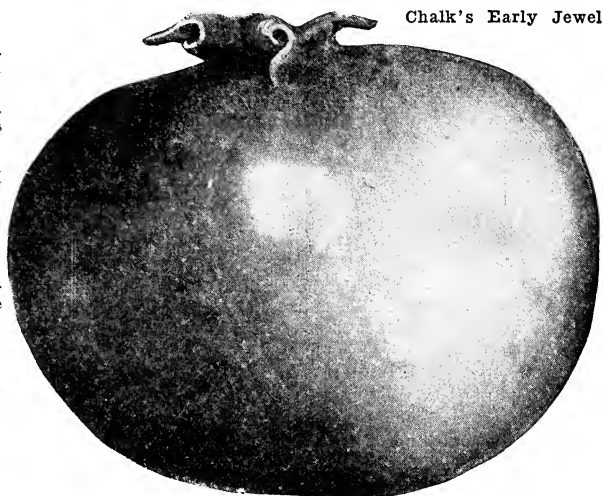
❖**CHALK'S EARLY JEWEL**—Few days later than Earliana, but larger and better. Is solid and fleshy. Seed cavities small and few. An extra fine, early tomato. Bright red.

**JOHN BAER**—A round red, early tomato. Heavy yielder.

❖**BONNY BEST**—A good second-early. Good one to succeed an extra-early variety. Medium and uniform size. Is bright red.

**DWARF STONE**—Tree tomato. Plant makes a strong, upright growth, unlike the vining varieties. Largest and best of its kind. Red.

❖**IMPROVED NEW STONE**—Best of all main-crop varieties. Large growers use this one almost exclusively. Large size, smooth, solid, round, red tomato. Very little acid.

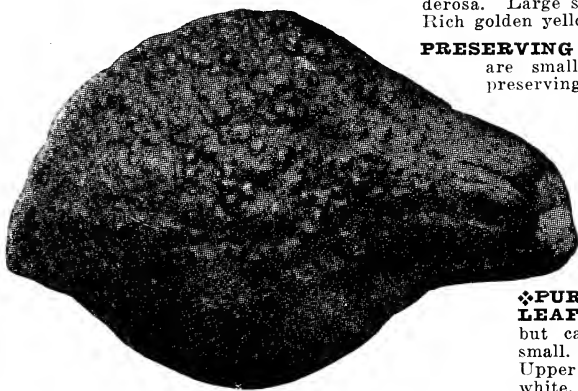


Chalk's Early Jewel

❖**PONDEROSA**—Largest of all. Inclined to be rough. Quality excellent. Very few seeds, and free of acid. Color deep-purple. Late.

**YELLOW PONDEROSA**—Equal in many ways to Ponderosa. Large size and excellent quality. Rich golden yellow.

**PRESERVING TOMATOES**—These are small fruited, and used for preserving, for which they are unexcelled. We have the following varieties, the name denotes the color and shape: **YELLOW PLUM**; **YELLOW PEAR**; **RED CHERRY**.



True Hubbard Squash

## TURNIP

❖**PURPLE TOP STRAP LEAF**—Semi-flat. Grows large, but can be pulled when still small. An excellent fall turnip. Upper part is purple, the rest white.

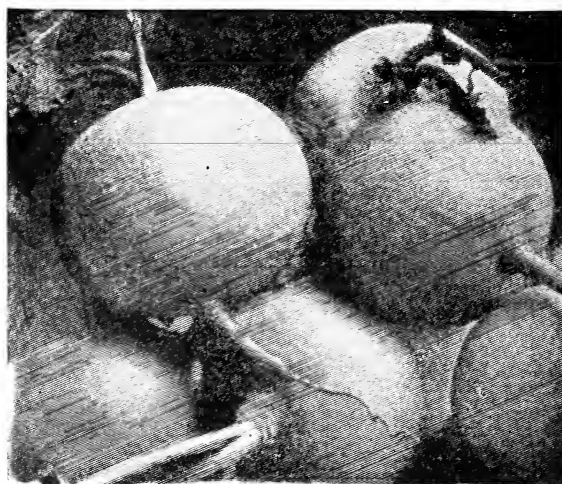
❖**PURPLE TOP GLOBE**—Same as above except globe-shaped instead of flat.

**EXTRA EARLY WHITE MILAN**—Earliest of all. Pure white; medium size; good quality.

**YELLOW GLOBE**—Yellow flesh.

## RUTABAGA

❖**IMPROVED AMERICAN PURPLE TOP**—Globe shaped; upper one-third purple, the rest light yellow. Best variety for table use. Also profitable for stock.



Purple Top Strap Leaf Turnips

## Miscellaneous Vegetables

### BROCCOLI

**WHITE MAMMOTH**—Similar to cauliflower, but much hardier.

### BRUSSELS SPROUTS

**DWARF IMPROVED**—A fine strain.

### CHICORY

**WITLOOF** (French Endive)—Used as winter salad.

### CRESS

**FINE CURLED** (Pepper Grass)—Used for soups and garnishing meats.

**WATER CRESS**.

## HERBS

Anise, Balm, Borage, Caraway, Catnip, Chives, Dill, Coriander, Rosemary, Rue, Sage, Summer Savory, Sweet Basil, Thyme, Wormwood.



**KOHL RABI**

**EARLY WHITE VIENNA**—Best of the white varieties.

**EARLY PURPLE VIENNA**—Same as above, except purple instead of white.

**LEEK**

**LARGE AMERICAN FLAG**—A strong grower, with broad leaves.

**MUSTARD**

Used same as spinach. Strong grower, very productive; leaves large and curled. We offer **SOUTHERN GIANT CURLED** and **FORDHOOK FANCY**, both good varieties.

**OKRA**

**WHITE VELVET**—Produces large velvety white pods, used in soups and salads.

**RHUBARB**

**VICTORIA**—A good large, early variety. For Rhubarb Roots see page 30.

**SALSIFY OR VEGETABLE OYSTER**

**MAMMOTH SANDWICH ISLAND**—A good substitute for oysters. This is considered the best variety.

## Garden Seed Price List

All Lithographed Packets, 5 cents each.

Prices as given here are for **BULK SEEDS**, and are weighed up in any quantity you desire while you wait. Once quantities can be broken into smaller denominations if your requirements are for less.

Lithographed packets are put up in advance and are 5 cents each for any variety.

IF YOU ARE A MARKET GARDENER OR BUY GARDEN SEEDS IN QUANTITIES ASK FOR OUR SPECIAL MARKET GARDENER'S PRICE LIST.

**ASPARAGUS SEED**

	Oz.	¼ lb.
Palmetto .....	\$0.15	\$0.35
Columbian Mammoth White .....	.15	.35
Washington, Rust Proof .....	.35	1.20

Asparagus Roots—Prices on page 30.

**BUSH BEANS****Green Pod**

	¼ lb.	½ lb.	lb.
Stringless Green Pod .....	\$0.10	\$0.20	\$0.35
Improved Early Red Valentine .....	.10	.20	.35
Black Valentine .....	.10	.20	.35
Extra Early Refugee .....	.10	.20	.35
Round Yellow Six Weeks .....	.10	.20	.35
Giant Stringless Green Pod .....	.10	.20	.35
Bountiful .....	.10	.20	.35
Dwarf Horticultural .....	.10	.20	.35

**Wax Pod**

	¼ lb.	½ lb.	lb.
Improved Golden Wax .....	.10	.20	.35
Pencil Pod Black Wax .....	.10	.20	.35
Wardwell's Kidney Wax .....	.10	.20	.35
Davis White Wax .....	.10	.20	.35
Webber Wax .....	.10	.20	.35
Rust Proof Wax .....	.10	.20	.35

**POLE BEANS****Green Pod**

	¼ lb.	½ lb.	lb.
Kentucky Wonder or Old Homestead .....	.10	.20	.35
London Horticultural .....	.10	.20	.35
Cut Short or Corn Hill .....	.10	.20	.35
Kentucky Wonder White Seeded or Burger's Stringless .....	.10	.20	.35

**Wax Pod**

	¼ lb.	½ lb.	lb.
Kentucky Wonder Wax .....	.10	.20	.35
Golden Cluster Wax .....	.10	.20	.35

**BUSH LIMA BEANS**

	¼ lb.	½ lb.	lb.
Burpee's Bush Lima .....	.10	.20	.40
Fordhook Bush Lima .....	.10	.20	.40
Henderson's Bush Lima .....	.10	.20	.35

**POLE LIMA BEANS**

	¼ lb.	½ lb.	lb.
King of the Garden .....	.10	.20	.40
Extra Early Jersey .....	.10	.20	.40

**SHELL BEANS**

	¼ lb.	½ lb.	lb.
Improved White Navy .....	.10	.15	.25
Red Kidney .....	.10	.20	.35

**BETT**

	Oz.	¼ lb.	lb.
Detroit Dark Red .....	.15	.35	1.20
Crosby's Egyptian .....	.15	.30	1.00
Crimson Globe .....	.15	.30	1.00
Edmand's Early Blood Turnip .....	.15	.30	1.00

	¼ lb.	½ lb.	lb.
MANGELS—Mammoth Long Red .....	.20	.50	
Golden Tankard .....	.20	.50	
Giant Rose Half Sugar .....	.20	.50	

	¼ lb.	½ lb.	lb.
SUGAR BEETS—Klein's Wanzleben .....	.20	.50	
Vilmorin's Imperial .....	.20	.60	

	¼ lb.	½ lb.	lb.
SWISS CHARD—Lucullus .....	.15	.30	1.00

**BROCCOLI**

	½ oz.	oz.	¼ lb.
White Mammoth .....	.15	.25	

**BRUSSELS SPROUTS**

	½ oz.	oz.	¼ lb.
Dwarf Improved .....	.10	.25	.60

**CABBAGE**

	½ oz.	oz.	¼ lb.
Early Jersey Wakefield .....	.15	.25	.80
Charleston Wakefield .....	.15	.25	.80
Copenhagen Market .....	.15	.30	.90
Early Flat Dutch .....	.15	.25	.80
Danish Ball Head .....	.15	.25	.80
Premium Late Flat Dutch .....	.15	.25	.80
Glory of Enkhuizen .....	.15	.25	.80
RED CABBAGE—Mammoth Rock .....	.15	.25	.80
SAVOY CABBAGE—Improved Amer. ....	.15	.25	.80
CHINESE CABBAGE—Pe-Tsai .....	.15	.25	.80

**CARROT**

	Oz.	¼ lb.	lb.
Danver's Half Long .....	.15	.35	1.00
Chantenay .....	.15	.35	1.00
Early Scarlet Horn .....	.15	.35	1.00
Oxheart or Guerande .....	.15	.35	1.00
Improved Long Orange .....	.15	.35	1.00
White Belgian, for Stock .....	.10	.20	.65

**CAULIFLOWER**

	¾ oz.	½ oz.	oz.
Early Snowball .....	.65	1.25	2.40
Extra Early Dwarf Erfurt .....	.60	1.10	2.00
Dry Weather .....	.60	1.10	2.00

**CELERY**

	¾ oz.	½ oz.	oz.
Golden Self Blanching .....	.35	.65	
Giant Pascal .....	.15	.30	
White Plume .....	.15	.30	
CELERIC—Giant Smooth Prague .....	.15	.35	

**CHICORY**

	¾ oz.	½ oz.	oz.
Witloof, or French Endive .....	.15	.25	

**SWEET CORN**

	¼ lb.	½ lb.	lb.
Peep O'Day .....	.10	.15	.30
Golden Bantam .....	.10	.15	.30
Mammoth White Cory .....	.10	.15	.30
Early Minnesota .....	.10	.15	.30
Black Mexican .....	.10	.15	.30
Stowell's Evergreen .....	.10	.15	.30
Country Gentleman .....	.10	.15	.30
Bantam Evergreen .....	.10	.15	.30

**CRESS**

	½ oz.	oz.	¼ lb.
Fine Curled (Pepper Grass) .....	.15	.40	
True Water Cress .....	.25	.45	

**CUCUMBER**

	½ oz.	oz.	¼ lb.
Chicago Pickling .....	.15	.35	
Improved Long Green .....	.15	.35	
Improved White Spine .....	.15	.35	
Davis Perfect .....	.15	.35	
Japanese Climbing .....	.15	.35	

**EGG PLANT**

	½ oz.	oz.	¼ lb.
Black Beauty .....	.30	.55	
Improved New York Purple .....	.30	.55	

**ENDIVE**

	Oz.	¼ lb.	lb.
Green Curled .....	.15	.45	
Broad Leaved .....	.15	.45	

**HERBS**

	Oz.		Oz.
Anise .....\$0.25	Rosemary .....	\$0.60	
Balm .....35	Rue .....	.50	
Borage .....15	Sage .....	.50	
Caraway .....10	Summer Savory .....	.25	
Catnip .....50	Sweet Basil .....	.20	
Chives .....75	Thyme .....	.60	
Coriander .....10	Wormwood .....	.25	
Dill, per lb., 75c .....	.10		

**KALE OR BORECOLE**

	Oz.	¼ lb.
Dwarf Green Curled .....	\$0.15	\$0.40
Tall Green Scotch .....	.15	.40

**KOHL RABI**

	½ oz.	oz.
Early White Vienna .....	.15	.25
Early Purple Vienna .....	.15	.25

**LEEK**

Large American Flag .....	.15	.25
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**LETTUCE****Leaf Varieties**

	Oz.	¼ lb.
Black Seeded Simpson .....	.15	.40
Early Curled Simpson .....	.15	.40
Grand Rapids Forcing .....	.15	.40
Early Prize Head (Brown Edge) .....	.15	.40

**Head Varieties**

Hanson .....	.15	.40
May King .....	.15	.40
Big Boston .....	.15	.40
California Cream Butter .....	.15	.40

**MUSKMELON****Green Fleshed Varieties**

Rocky Ford .....	.15	.45
Extra Early Hackensack .....	.15	.45
Honey Dew .....	.15	.45

**Salmon Fleshed Varieties**

Pollock 10-25 .....	.15	.45
Tip Top .....	.15	.45
Osage .....	.15	.45
Emerald Gem .....	.15	.45
Paul Rose .....	.15	.45
Banana .....	.15	.45

**WATERMELON**

	Oz.	¼ lb.
Tom Watson .....	.15	.35
Kleckley Sweet, or Monte Cristo .....	.15	.35
Halbert Honey .....	.15	.30
Sweetheart .....	.15	.30
Cole's Early .....	.15	.30
Citron, Red Seeded .....	.15	.30

**MUSTARD**

Southern Giant Curled .....	.10	.30
Fordhook Fancy .....	.10	.30

**OKRA**

White Velvet .....	.15	.35
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**ONION****Eastern Grown**

	½ oz.	oz.	¼ lb.
Southport Red Globe .....	.15	.25	.75
Southport Yellow Globe .....	.15	.25	.75
Southport White Globe .....	.15	.25	.95
Large Red Wethersfield .....	.15	.25	.75
Prize Taker .....	.15	.25	.75
White Portugal or Silverskin .....	.15	.25	.75
Scott County Bottleneck .....	.15	.30	1.00

**ONION SETS**

	1 lb.	2 lbs.
White Bottoms .....	.15	.25
Yellow Bottoms .....	.15	.25
Red Bottoms .....	.15	.25
Scott County Bottleneck .....	.20	.35

Note: Prices on Onion Sets subject to change. Quantity prices on request.

**PARSLEY**

	Oz.	¼ lb.	lb.
Champion Moss Curled .....	.15	.35	.90
Plain .....	.15	.35	.85
Turnip-Rooted, or Hamburg .....	.15	.35	.85

**PARSNIPS**

	Oz.	¼ lb.
Hollow Crown .....	.15	.40
Guernsey .....	.15	.40

**PEAS**

	¼ lb.	½ lb.	lb.
Alaska .....	.10	.15	.30
First and Best .....	.10	.15	.20
American Wonder .....	.10	.20	.35
Gradus, or Prosperity .....	.10	.20	.35
Laxtonian .....	.10	.20	.35
Little Marvel .....	.10	.20	.35
Thomas Laxton .....	.10	.20	.35
Nott's Excelsior .....	.10	.20	.35
Premium Gem, or Little Gem .....	.10	.20	.25
Improved Stratagem .....	.10	.20	.35
Telephone .....	.10	.20	.35
Champion of England .....	.10	.20	.35
Melting Sugar, edible pod .....	.10	.20	.35

**PEPPER**

	¼ oz.	½ oz.	oz.
Chinese Giant .....	.20	.35	.60
Ruby King .....	.20	.35	.60
Bull Nose, or Large Bell .....	.20	.35	.60
Long Red Cayenne .....	.15	.30	.50
Pimento .....	.15	.30	.50
Red Chili (Small Cayenne) .....	.15	.30	.50

**POF CORN**

	¼ lb.	½ lb.	lb.
Japanese Hulless .....	.10	.15	.25

**PUMPKIN**

	Oz.	¼ lb.	lb.
Large Cheese, or Kentucky Field .....	.10	.30	.90
Connecticut Field .....	.10	.30	.90
Small Sugar .....	.10	.30	.90
Mammoth Prize .....	.15	.40	1.50

**RADISH**

	Oz.	¼ lb.
Early Scarlet Turnip White Tip .....	.15	.35
Early Scarlet Globe .....	.15	.35
Crimson Giant Forcing .....	.15	.35
White Icicle .....	.15	.35
French Breakfast .....	.15	.35
Long Scarlet .....	.15	.35
White Strassburg .....	.15	.35
Long Black Spanish, Winter .....	.15	.35
Rose China, Winter .....	.15	.35

**RHUBARB**

Victoria .....	.20	.50
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Roots—See page 30.

**SALSIFY OR VEGETABLE OYSTER**

Manmoth Sandwich Island .....	.15	.50
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**SPINACH**

	Oz.	¼ lb.	lb.
Bloomsdale, Savoy Leaved .....	.10	.20	.50
Long Standing .....	.10	.20	.50
New Zealand .....	.10	.35	.95
Round Thick Leaf .....	.10	.20	.50

**SQUASH**

Genuine Green Hubbard .....	.15	.45
Golden Hubbard .....	.15	.45
Delicious .....	.15	.45
White Bush Scallop .....	.15	.40
Giant Summer Crookneck .....	.15	.40
Banana .....	.15	.40

**TOMATO**

	¼ oz.	½ oz.	oz.
Earliana .....	.10	.20	.35
Chalk's Early Jewel .....	.10	.20	.35
John Baer .....	.10	.20	.35
Bonny Best .....	.10	.20	.35
Dwarf Stone .....	.10	.20	.35
Improved New Stone .....	.10	.20	.35
Ponderosa .....	.15	.30	.50
Yellow Ponderosa .....	.15	.30	.55
Yellow Plum .....	.15	.30	.55
Yellow Pear .....	.15	.30	.55
Red Cherry .....	.15	.30	.55
Ground Cherry, or Husk Tomato .....	.15	.30	.55

**TURNIP**

	Oz.	¼ lb.	lb.
Purple Top Strap Leaf .....	.10	.25	.75
Purple Top Globe .....	.10	.25	.75
Extra Early White Milan .....	.10	.25	.75
Yellow Globe .....	.10	.25	.75

**RUTABAGA**

Improved American Purple Top .....	.10	.25	.75
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## CONDENSED CULTURAL DIRECTIONS FOR PLANTING AND GROWING VEGETABLES

Vegetable	Amount required for 100 ft. row.	Amount required per acre.	Distance apart in rows.	Distance between rows.	Kind of Soil.	Depth of Planting	Time of Planting.	Ready to Use After Planting
Asparagus Seed	1-2 oz.	6000 roots	3 to 5 in.	1 to 2 ft.	deep rich	1 in.	April-May	3 years
Asparagus Roots	50 roots	75 lbs.	4 in.	3 1/2 ft.	deep rich	1 1/2 to 2 in.	April-May	2 years
Beans, Bush	1 lb.	25 lbs.	3 ft. (hills)	3 1/2 ft.	warm rich	1 1/2 to 2 in.	May-Aug.	45-75 days
Beans, Pole	1/2 lb.	150 lbs.	6 in.	2 1/2 ft.	warm rich	2 in.	May-June	50-80 days
Beans, Bush Lima	2 lbs.	25 lbs.	4 in. (hills)	18 in.	warm rich	2 in.	May-June	70-100 days
Beans, Pole Lima	2 oz.	5-6 lbs.	4 in.	2 1/2 ft.	deep rich loam	1 in.	April-Aug.	60-70 days
Beets	1/2 lb.	---	1 1/2 to 2 ft.	3 ft.	rich warm loam	1/2 in.	March-May	100-130 days
Broccoli Sprouts	1/2 oz.	---	18 to 24 in.	2 1/2 ft.	rich warm loam	1/2 in.	March-May	90-120 days
Cabbage	1/3 oz.	4 oz.	3 to 4 in.	16 to 24 in.	rich warm loam	1/2 in.	March-June	90-130 days
Carrot	1 oz.	4 oz.	6 in.	2 1/2 ft.	rich warm loam	1/2 in.	April-June	60-85 days
Cauliflower	1/2 oz.	---	18 to 20 in.	3 to 4 ft.	very rich	1/2 in.	March-June	100-130 days
Celery	1 oz.	---	18 to 24 in.	2 1/2 ft.	rich	1/2 in.	July-Aug.	125-150 days
Chinese Cabbage	1 oz.	---	18 to 24 in.	3 ft.	rich warm loam	1/2 in.	May-June	60-90 days
Collards	1/2 lb.	12 lbs.	10 to 12 in.	12 in.	rich warm loam	1 in.	May-June	100-120 days
Corn, Sweet	1/2 oz.	---	drill	4 ft.	light	1/4 in.	March-Aug.	30-40 days
Cress	1/2 oz.	2 lbs.	5 ft.	3 ft.	warm moist loam	1/2 in.	May-June	60-80 days
Cucumber	1/2 oz.	---	2 ft.	3 ft.	very rich loam	1/2 in.	March-May	100-140 days
Egg Plant	1/2 oz.	---	1 ft.	15 in.	light fertile	1/2 in.	April-July	75-100 days
Endive	1/2 oz.	---	18 in.	2 ft.	very rich	1/2 in.	March-April	70-100 days
Kale	1/2 oz.	---	8 in.	2 ft.	rich warm loam	1/2 in.	March-June	60-80 days
Kohl Rabi	1/4 oz.	---	6 in.	14 in.	rich warm loam	1/2 in.	March-June	120-150 days
Leek	1 oz.	3-4 lbs.	6 in.	15 in.	rich warm loam	1/2 in.	March-May	60-100 days
Lettuce	1 oz.	2 1/2 lbs.	5 ft.	5 ft.	rich warm loam	1/2 in.	March-May	80-100 days
Melons, Musk	1/2 oz.	4-5 lbs.	8 ft.	5 ft.	light rich loam	1/4 in.	May	90-110 days
Melons, Water	1 oz.	---	drill	12 in.	rich warm loam	1/2 in.	March-Aug.	60-90 days
Mustard	1 oz.	---	18 in.	12 in.	moderately rich	1 in.	May-June	80-120 days
Okra	2 oz.	4-5 lbs.	2 in.	12 to 18 in.	clean rich drained	1/2 in.	March-May	110-140 days
Onion	1 oz.	---	3 to 6 in.	18 in.	fertile	1/4 in.	April-June	90-120 days
Parsley	2/3 oz.	5-6 lbs.	3 to 6 in.	2 ft.	mellow rich	1 in.	April-May	100-150 days
Parsnip	2/3 oz.	100 lbs.	2 in.	3 ft.	deep rich	1 1/2 in.	March-July	50-80 days
Peas, Dwarf	1 1/2 lbs.	70 lbs.	2 in.	3 ft.	strong rich	1 1/2 in.	March-July	60-90 days
Peas, Tall	1 lb.	---	15 to 18 in.	2 to 3 ft.	strong rich	1 1/2 in.	March-May	100-140 days
Pepper	1/4 oz.	---	10 ft.	10 ft.	very rich warm	1/2 in.	March-May	100-130 days
Pumpkin	1 oz.	3-4 lbs.	1 1/2 in.	12 in.	corn ground	1 in.	March-Sept.	25-50 days
Radish	1 oz.	---	10 to 12 in.	12 in.	warm moist loam	1/2 in.	March-April	3-4 years
Rutabaga	1/2 oz.	2 lbs.	6 in.	18 to 24 in.	deep rich	1/2 in.	May-June	80-100 days
Salsify	2 oz.	---	3 to 4 in.	12 to 18 in.	warm deep rich	1/2 in.	March-Sept.	100-130 days
Spinach	1 oz.	10 lbs.	drill	1 ft.	light rich	1 in.	April-May	60-80 days
Squash, Bush	2 oz.	3-4 lbs.	5 ft.	5 ft.	extra rich	1 in.	March-Sept.	50-60 days
Squash, Vining	2 oz.	2-3 lbs.	8 ft.	8 ft.	well manured	1 in.	April-June	70-80 days
Tomato	1/4 oz.	---	2 ft.	3 ft.	rich loam	1/2 in.	March-May	100-140 days
Turnip	1/2 oz.	2 lbs.	6 in.	18 to 24 in.	warm deep rich	1/2 in.	April-Aug.	60-80 days

## SUPPLEMENTARY DIRECTIONS

1. Beans should not be planted until ground is thoroughly warmed or they will rot. Successive plantings can be made as late as fore part of August.
2. Cabbage, cauliflower, egg plant, tomatoes, peppers, parsley, kohlrabi, celery, broccoli and brussels sprouts for early use should be started in the house, hothed or coldframe in March and transplanted to the open when weather and soil permit. For late use they can be planted in open where they are to stand.
3. Smooth varieties of peas may be planted as early in the spring as ground can be worked. The wrinkled varieties, not until the ground is warm, which is usually about the latter part of April or fore part of May in this latitude.

# Seed Potatoes

A few years ago the writer made a tour through the potato sections of northern Minnesota and North Dakota for the purpose of buying seed potatoes for the following spring. At Crookston, Minnesota, he came across an exceptionally fine lot of certified Ohios and Cobblers which he bought, and at the same time arranged with the grower, who is one of the most up-to-date farmers of his community, to supply us for the coming years.

Just as this page is prepared, we have a letter from him, reporting his 1923 crop. In his own words, we are glad to inform our customers of the superior seed stock we will have to offer next spring.

Crookston, Minn.,

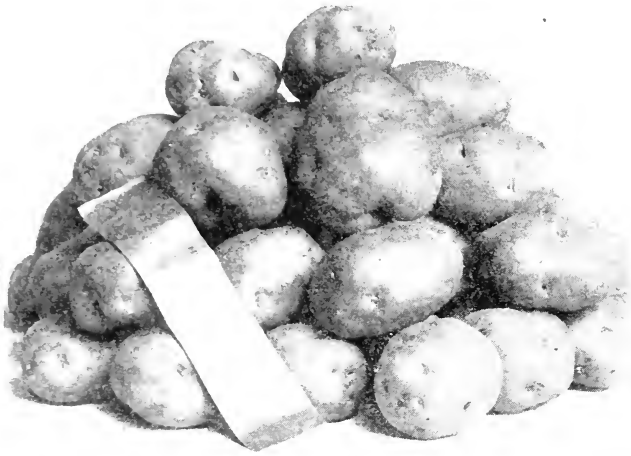
Oct. 12, 1923.

Dear Sir:

Yours of October 10th received this evening. Can inform you that my potatoes passed about a perfect inspection. Got 100 per cent on type, 100 per cent on varietal purity, and 99.9 per cent freedom from disease. Had a very good crop and the quality is about the same as last year but they won't average quite as large and have a little more of a pink color on account of the warm and dry season which has prevailed here in the valley this fall. The inspector said they were one of the best fields he had inspected in his district of five counties. Very few Cobblers in the Valley will pass inspection this year, as there can't be over 10 per cent off-type spuds as they come from the field, and most fields have been rejected so far on this account.

Yours very truly,

MINER A. HELGESON.



Irish Cobblers

## CERTIFIED RED RIVER EARLY OHIOS

The above letter and the accompanying picture should suffice to describe the Ohios we are offering this season. We have never had nicer ones. They are not extra large but a good medium sized potato, very smooth, uniform and true to type. For planting they are better than the extremely large ones.

These potatoes are put up in sealed bags and bear the official certification tag of the Minnesota State Department of Agriculture, which means that the contents have been inspected by a duly authorized agent and meet the prescribed standards relative to freedom of disease and varietal purity.

## CERTIFIED IRISH COBBLERS

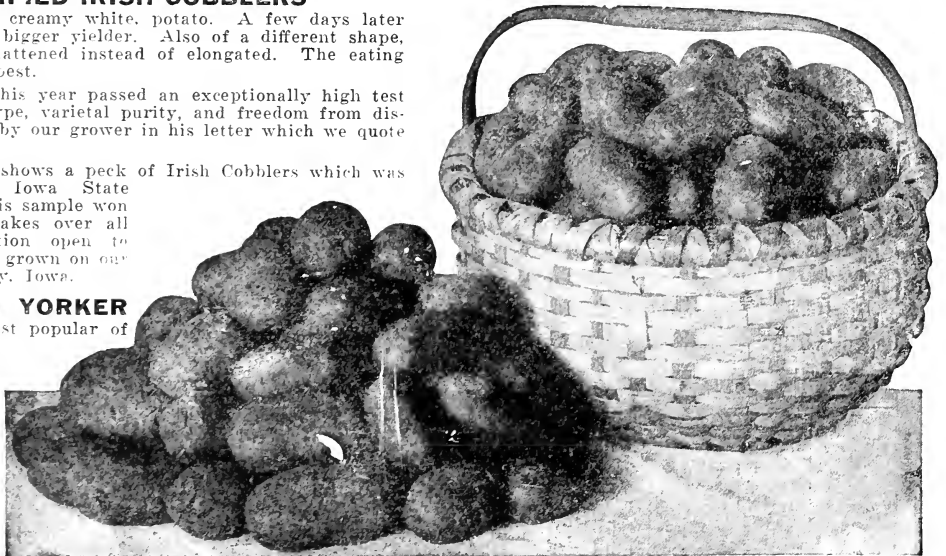
A handsome, creamy white, potato. A few days later than Ohio, but a bigger yielder. Also of a different shape, being somewhat flattened instead of elongated. The eating quality is of the best.

Our Cobblers this year passed an exceptionally high test for trueness to type, varietal purity, and freedom from disease, as reported by our grower in his letter which we quote above.

The cut above shows a peck of Irish Cobblers which was exhibited at the Iowa State Fair in 1916. This sample won first and sweepstakes over all varieties, competition open to the state. It was grown on our farm at Sigourney, Iowa.

## RURAL NEW YORKER

This is the most popular of the late varieties. Its flattened shape and creamy white color give it an attractive appearance. The eating qualities are good, and it is an excellent keeper. Also less subject to scab than other varieties.

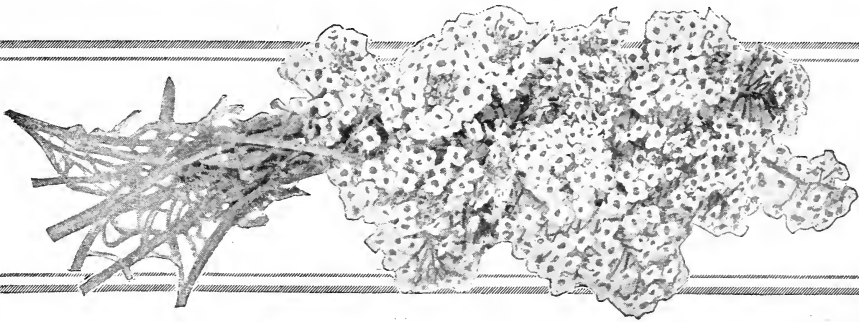


Early Ohios

## NON-CERTIFIED SEED POTATOES

We usually have non-certified stock also of the above varieties. They are cheaper, and oftentimes are good, clean, dependable stuff. Further details and prices on request.

CURRENT PRICES ON SEED POTATOES GIVEN ON REQUEST



Alyssum

## Bruns' Choice Flower Seed

On the following pages we list our complete line of both annual and perennial flower seeds. All are grown by leading American and European flower seed experts and put up by ourselves. We know what is in our packets for we fill them ourselves.

All varieties shown here are listed alphabetically according to their botanical names. The common names are given in parenthesis.

For the purpose of classification and guidance we use the following symbols:

(A) **ANNUALS.** These make their full growth, bloom and die the first year from seed. Many of them, however, reseed themselves and keep coming every spring.

(P) **PERENNIALS.** These are hardy and live and bloom for several years. With a few exceptions they do not bloom from seed till the second year. For Perennial Plants see page 26 of Plant Department.

**PRICES**—Flower seeds are put up in lithographed packets. Any variety, per pkt., 10c; 3 pkts., 25c; 12 pkts., \$1.00—all of a kind or assorted. Sweet Peas, Nasturtiums, Ricinus (Castor Bean), and a few others sold in bulk also.

**AGERATUM (Floss Flower) (A)**—Little Blue Star. This variety is low growing and one of the best annuals for borders. Makes a good companion flower to the Sweet Alyssum. The beautiful blue of the Ageratum contrasted with the delicate white of the Alyssum makes an effective combination. Pkt., 10c; 3 pkts., 25c.

**ALYSSUM (A)**—Little Gem. Also called "Carpet of Snow" because of the compact mass of snow-white blooms. Excellent for edging purposes. Flowers are sweet-scented and bloom continuously from early summer till fall. Pkt., 10c; 3 pkts., 25c.

**AMARANTHUS (A)**—Grown for its brilliantly colored foliage. Plant grows tall and is well adapted for backgrounds of flower-beds, or ornamental hedges. Sow the seed indoors in February and transplant outdoors in May, or sow the seed in the open where plants are to stand, when weather and soil are right. Thin out if too thick. Pkt., 10c; 3 pkts., 25c.

**ANTIRRHINUM (Snapdragon) (A)**—One of the showiest and best of all annuals. Comes in many colors ranging from purplish-red to white. If sown indoors in March and again outdoors in May there will be a succession of bloom throughout the summer and early fall. The gorgeous spikes are two to three feet in height and are excellent for cut flowers.

—Choice Mixed. Pkt., 10c; 3 pkts., 25c.

**AQUILEGIA (Columbine) (P)**—The beautiful and graceful spurred flower of the Columbine makes it one of our best hardy perennials. Blooms early in the season. Perfectly hardy and does well in almost any location. Pkt., 10c; 3 pkts., 25c.

For two-year-old plants, see page. 26.



Ageratum or Floss Flower



Aster

**ASTERS (A)**—Queen of the Market. The earliest of all asters, coming into bloom two or three weeks before others. Mixed, all shades, pkt., 10c; 3 pkts., 25c.

—Giant Comet. Plants are of branching habit, growing about 18 inches high. Produces large double flowers, with fluffy petals resembling an ostrich plume. Finest mixed, pkt., 10c; 3 pkts., 25c.

—Giant American Branching. A very fine late variety of American origin. The plants are vigorous growers, reaching a height of 2 to 3 feet, and branch freely. The flowers are very large and are borne on long stems. We offer this one in separate colors: White, crimson, pink, purple, lavender, mixed. Pkt., 10c; 3 pkts., 25c.

**BACHELOR'S BUTTON**—See Centaurea.

**BALLOON VINE (Love in a Puff) (A)**—A rapid growing annual climber, reaching 12 to 15 feet. Flowers are small and borne in clusters. Seed pods are balloon-shaped. Pkt., 10c; 3 pkts., 25c.



## African Marigold



**BALSAM APPLE (A)**—This annual climber is grown for the curious effect of its large seed pod, resembling an apple. As the seed reaches maturity this pod opens, exposing the blood-red pulp and large black seeds. Very ornamental. Fine for trellis work. Reaches height of 10 ft. Pkt., 10c; 3 pkts., 25c.

**BALSAM (Lady Slipper) (A)**—A beautiful annual of erect, compactly branching nature. The flowers are closely clustered about the stem. They come in many shades including red, blue, white, pink, lilac, lemon and variegated. Pkt., 10c; 3 pkts., 25c.

**CALIFORNIA POPPY** — See Escholtzia.

**CALENDULA (Pot Marigold) (A)**—Its brilliant shades of yellow and orange make the Calendula one of the showiest of all annals. Good for beds or borders. Blooms from early summer till frost. Pkt., 10c; 3 pkts., 25c.

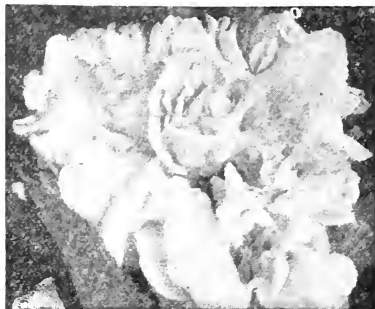
**CALLIOPSIS (Tickseed) (A)**—This flower is easy to grow, and does well in almost any garden soil. Prefers a sunny location. Flowers come in various shades of yellow; bright and showy. Pkt., 10c; 3 pkts., 25c.

**CAMPANULA (Canterbury Bells) (P)**—A beautiful perennial. Flowers are of the cup and saucer shape, in various shades of blue, white and pink. Should be in every perennial garden. Pkt., 10c; 3 pkts., 25c.

For plants of the Campanula see page 26.

**CANARY BIRD VINE (A)**—Both foliage and flower make this one of our most handsome climbers. The flower is a bright canary-yellow and bears a slight resemblance to a bird with wings spread. Does best in a rather cool shady place. Pkt., 10c; 3 pkts., 25c.

**CANDYTUFT (A)**—Next to Sweet Alyssum, perhaps the most widely used annual for edging. Grows six to eighteen inches high. Blooms from July to September. Pkt., 10c; 3 pkts., 25c.



Balsam

**CARNATION (A)**—Giant Margaret Mixed. Very large flowers in brilliant and varied colors. Come into bloom in four months from sowing. Start seed indoors and transplant outside. Seed sown during the summer will produce plants which can be potted in the fall and will bloom throughout the winter. Pkt., 10c; 3 pkts., 25c.

**CASTOR BEAN**—See Ricinus.

**CELOSIA (Coxcomb) (A)**—Cristata. This is the crested variety, producing large, comb-like flowers. Blooms from June to October. Prefers a light, rich soil. Pkt., 10c; 3 pkts., 25c.

—Childsii (Chinese Woolflower). Flowers of enormous size, globe shaped, and rich dark crimson color. Grows 2 to 3 feet high. Pkt., 10c; 3 pkts., 25c.

—Thompsoni. This is the ostrich plume variety. The flower closely resembles a brilliantly colored ostrich feather. Reaches a large size, and comes in various shades—blood-red, purple, scarlet, salmon and yellow. Pkt., 10c; 3 pkts., 25c.

**CENTAUREA CYANUS (Bachelor's Button or Cornflower) (A)**

—Known also as Ragged Sailor. A popular annual, flourishing in practically any location where it receives a little sun. Blooms for a long period if kept picked. The flowers are blue, purple, or white; of a modest nature. Pkt., 10c; 3 pkts., 25c.

**CHRYSANTHEMUM (A and P)**—Annual Mixed. In this mixture we have combined some of the best varieties of both single and double chrysanthemums. Contains many colors, including yellow, white, red crimson and variegated. Start the seed indoors in April, or outdoors when danger of frost is past. Pkt., 10c; 3 pkts., 25c.

—Perennial Mixed. The best double and single varieties. Pkt., 10c; 3 pkts., 25c.

Also can be furnished in two-year-old plants. See page 26.

**COIX LACHRYMAE (Job's Tears)**

(A)—An ornamental grass growing about 3 feet high. Bears odd, tear-shaped seeds which can be used as beads or other ornamental purposes. Pkt., 10c; 3 pkts., 25c.

All annual and perennial plants are listed on pages 25 and 26.

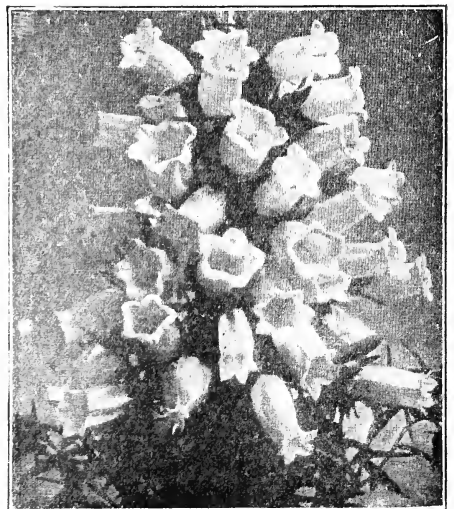


Calliopsis

**CARDINAL CLIMBER (A)**—A splendid climber reaching a height of 25 feet. Produces a profusion of fiery red flowers, and beautiful, finely-divided leaves. Flower on the order of morning glory but somewhat smaller. Blooms from July till frost. Pkt., 10c; 3 pkts., 25c.

## NOTICE!

See pages 25 and 26 for complete list of flower plants, both of the annual and perennial varieties.



Canterbury Bell

**COLUMBINE**—See *Aquilegia*.

**CONVOLVULUS (Morning Glory) (A)**—A quick-growing climber of great value for covering arbors or for screening. Reaches a height of 8 to 10 feet within 6 to 8 weeks after planting. Our mixture contains a wide variety of color. Pkt., 10c; 3 pkts., 25c.

**COREOPSIS (Tickseed) (P)**—Brilliantly colored, daisy-like flowers in various shades of yellow. Borne on long graceful stems and, therefore, very fine for cut flowers. The plant forms a clump which increases in size as it gets older. Perfectly hardy. Pkt., 10c; 3 pkts., 25c.

Plants can be furnished in season. See page 26.

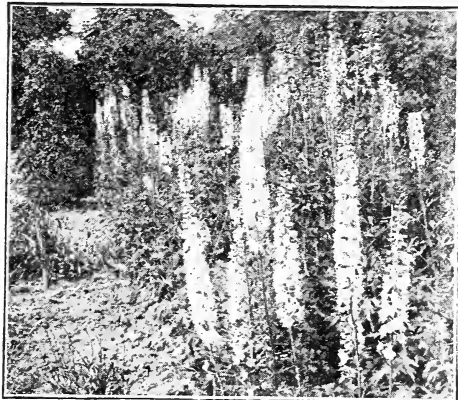
**COSMOS (A)**—Early Flowering Mammoth. This, in our opinion, is the best of all the Cosmos. It combines earliness of the small early varieties with the large sized flower of the late varieties. One of the favorite tall annuals for late summer bloom. Our mixture comes in several shades, including crimson, white and pink. Pkt., 10c; 3 pkts., 25c.

**CYPRESS VINE (A)**—A climber with delicate dark green, feathery, fern-like foliage, and masses of bright star-shaped, rose, scarlet and white blossoms. Good for trellis work. Climbs to a height of 10 feet. Pkt., 10c; 3 pkts., 25c.

**DAISY—SHASTA (P)**—A hardy perennial, blooming more profusely every season. The blooms are large, with gracefully curved, pure-white petals, and golden center. Excellent for cut flowers. Stays in bloom for a long time. Should be in every perennial garden. Pkt., 10c; 3 pkts., 25c.

For Shasta Daisy plants, see page 26.

**DELPHINIUM (Larkspur) (A and P)**—The larkspur is one of the showiest of all flowers. The blossoms form a long spike flower which often reaches a height of several feet. Very effective for massing. We carry both the annual and perennial larkspur.



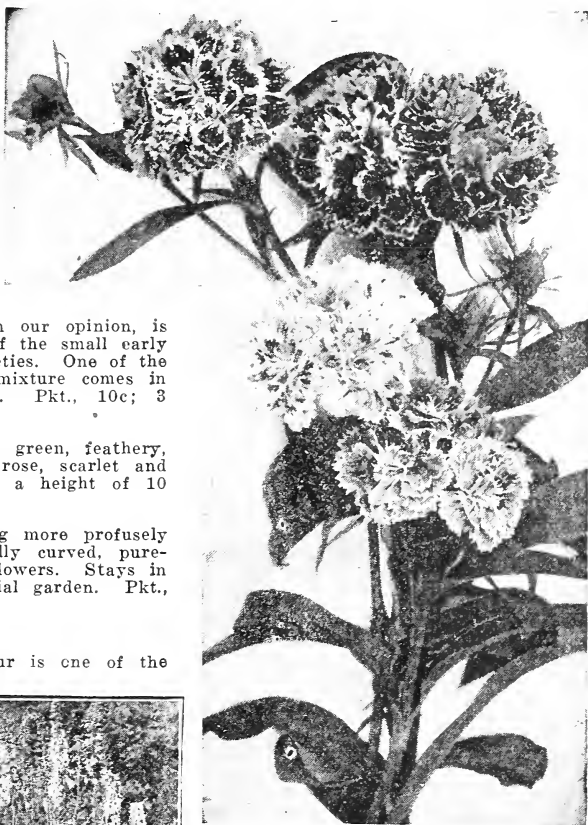
Delphinium

—Annual Mixed. Contains pink, carmine, white, and many shades of blue. Fine for planting amongst shrubbery or in borders. Sow the seed outdoors early in the spring or late fall. Pkt., 10c; 3 pkts., 25c.

—Perennial Mixed. These come in various shades of blue. The seed is slow germinating and should be sown



Cosmos



Sweet William

early in the spring or late fall. Perfectly hardy. Two-year-old plants of the Perennial Delphinium listed on page 26. Pkt., 10c; 3 pkts., 25c.

**DIANTHUS (Garden Pinks) (A and P)**—A beautiful old-fashioned flower with which most people are familiar. Produced in various shades of pink and red in odd designs. Single and double flowers. Blooms from July to frost.

—Annual Mixed. Pkt., 10c; 3 pkts., 25c.

—Perennial Mixed. Pkt., 10c; 3 pkts., 25 cents.

Two-year-old plants listed on page 26.

**DIANTHUS BARBATUS (Sweet William) (P)**—Noted for its diversity of colors and deliciously sweet-scented flowers. Also a favorite for vases and bouquets. Grows 18 to 24 inches high. Pkt., 10c; 3 pkts., 25c.

For plants see page 26.

**DIGITALIS (Fox glove) (P)**—A hardy perennial producing large spikes of richly colored flowers, excellent for cutting. Highly ornamental, with flowers in white, pink, purple, yellow and various shades. Grows 4 to 5 ft. high. Mixed colors. Pkt., 10c; 3 pkts., 25c.

Plants of the Digitalis listed on page 26.

#### ANNUAL CLIMBERS

Baloon Vine, Balsam Apple, Canary Bird Vine, Cardinal Climber, Convolvulus Major, Cypress Vine, Dolichos, Gourds, Humulus Japonicus, Ipomoea, Tall Nasturtium.



Morning Glory

**DOLICHOS (Hyacinth Bean) (A)**—A very fine annual climber with beautiful purple and white flowers, which are followed by purple colored seed pods. Sow the seeds where the plants are to remain. Reaches a height of 10 feet. Pkt., 10c; 3 pkts., 25c.

**ESCHOLTZIA (California Poppy) (A)**—The California Poppy is one of our most brilliant annuals. Comes in many colors, including white, crimson, orange and many shades of yellow. It blooms continuously from early summer till frost. The plant is dwarf and spreading, with finely divided leaves. About 12 inches high. Pkt., 10c; 3 pkts., 25c.

**FORGET-ME-NOT**—See *Myosotis*.

**FOUR O'CLOCK**—See *Mirabilis*.

**FOXGLOVE**—See *Digitalis*.

**GAILLARDIA (Blanket Flower) (A and P)**—For gay coloring few flowers equal the Gaillardia. The flowers are of the daisy type and fine for cutting. They are also noted for their long period of bloom. There are both annual and perennial Gaillardias. The hardy varieties are especially effective in the hardy border.

—Annual Mixed.  
Pkt., 10c; 3 pkts., 25c.

—Perennial Mixed.  
Pkt., 10c; 3 pkts., 25c.

We can furnish plants of the Perennial Gaillardia. See page 26.

Include some plant flowers in your order. You will like them.

*Helichrysum*, Straw Flower



Hollyhocks

**GOMPHRENA (Globe Amaranth) (A)**—

This is a variety of everlasting flowers, and can be dried and used for winter bouquets. The flower resembles clover heads. Pkt., 10c; 3 pkts., 25c.

**GOURDS (A)**

—Our mixture contains many varieties. Interesting in their odd shapes and varying sizes, some of which have a practical value.

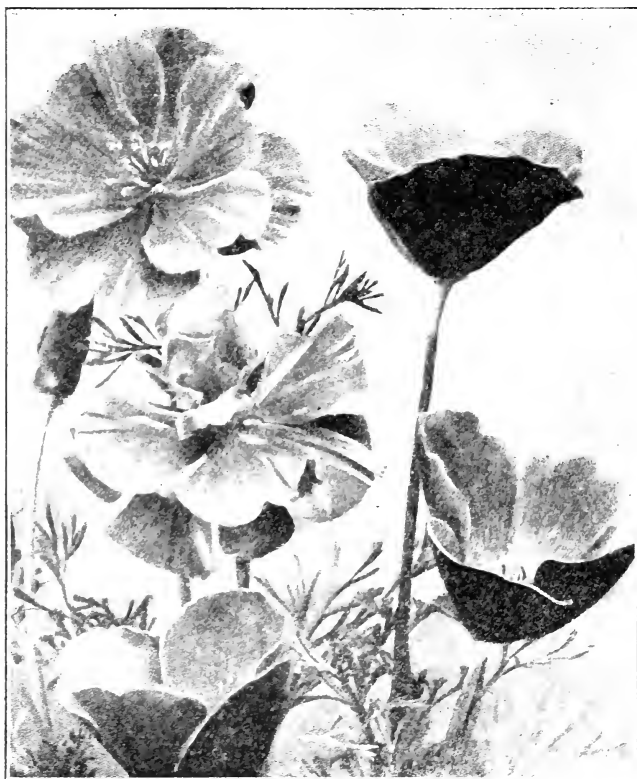
Make a heavy vine growth and reach a considerable height in a short while. Children enjoy planting them and watching for returns. Pkt., 10c; 3 pkts., 25c.

**GYPSOPHILA (Baby's Breath) (P)**—*Paniculata*. The dainty little white flowers and delicate foliage of the Gypsophila give it a charming lace-like effect and make it especially valuable in bouquets with other flowers. Also very pretty in beds. Pkt., 10c; 3 pkts., 25c. For Plants of this hardy perennial see page 26.

**HELICHRYSUM (Strawflower) (A)**—The *Helichrysum* is one of our best everlasting flowers. For dry winter bouquets it is unexcelled. The flowers are double and brilliantly colored. Resemble artificial flowers, because of the stiff dry petals. To preserve their best form, gather at night when partly open. Pkt., 10c; 3 pkts., 25c.

**HOLLYHOCKS (P)**—Everyone is acquainted with this stately flower. Its tall spike with large single and double, bellshaped flowers clustered about it, and towering high over its neighbors, makes it one of the most conspicuous flowers of the garden. If planted early indoors and transplanted later into the open, can be brought into bloom the first year from seed. Is perfectly hardy and blooms more beautifully and profusely each succeeding year. Pkt., 10c; 3 pkts., 25c.

Hollyhock plants listed on page 26.



California Poppy (*Escholtzia*)

**HUMULUS JAPONICUS** (Japanese Hop Vine) (A)—One of our most reliable and beautiful climbers. Makes an abundant and attractive growth of foliage. Reaches a height of twenty feet. Flowers are inconspicuous but the foliage is spotted with white and gray markings. Pkt., 10c; 3 pkts., 25c.

**ICE PLANT** (A)—An interesting plant of trailing nature, very well suited for rockeries or hanging baskets. The flower is of little importance but the leaves are thick and fleshy and appear as if covered with ice crystals. Sow outside when weather and ground are warm. Pkt., 10c; 3 pkts., 25c.

**IPOMOEA** (Moonflower) (A)—A climber closely resembling Morning Glory. The flower is white and quite fragrant. Opens in the evening. Grows rapidly and attains a height of 15 to 20 feet. Easy to grow. Pkt., 10c; 3 pkts., 25c.

**KOCHIA** (Summer Cypress or Burning Bush) (A)—This is one of the best of all annual plants for hedges or borders. Resembles a small evergreen tree and can be trimmed to any shape. As the season advances, the feathery light green foliage changes to a brilliant red. Does best in clayey soil and a sunny location. Pkt., 10c; 3 pkts., 25c.

**LARKSPUR**—See Delphinium.

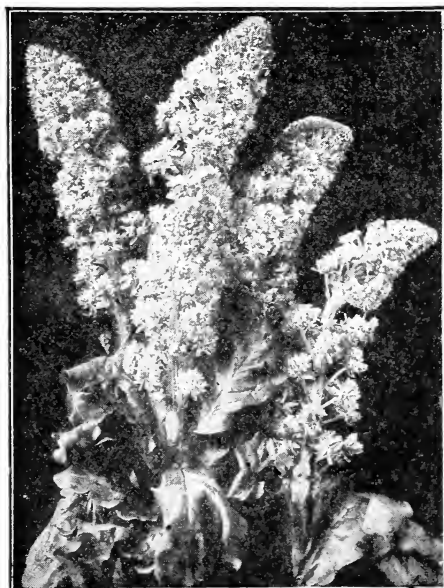
**LOBELIA** (A)—A valuable and beautiful dwarf growing annual of easy culture. The pretty little blue flowers are borne on stems which protrude beyond the foliage. Can be used many ways—bedding, edging, hanging baskets, pots or rockeries. Pkt., 10c; 3 pkts., 25c.

**MARIGOLD** (A)—One of our most gorgeous late summer and autumn bloomers. The flowers come in many brilliant shades of yellow, and emerge from a luxuriant growth of dark green, finely cut foliage which adds to their conspicuousness. There are two principal classes of Marigolds—African and French. The former grows considerably taller and bears enormous double flowers in light yellow to orange shades. The French variety makes a small flower of a rich velvety appearance ranging in color from yellow to maroon.

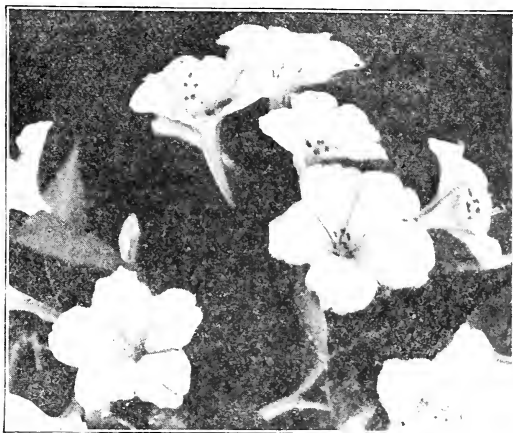
—African Marigold Mixed. Pkt., 10c; 3 pkts., 25c.

—French Marigold Mixed. Pkt., 10c; 3 pkts., 25c.

**MIGNONETTE** (A)—Especially noted for its pleasing fragrance. A modest flower but can be used to very good advantage in bouquets with more conspicuous sorts. Pkts., 10c; 3 pkts., 25c.



Mignonette



Moonflower



Forget-Me-Not

**MYOSOTIS** (Forget-Me-Not)

(P)—An old fashioned flower admired by everyone. It is a hardy perennial but blooms the first year from seed. The flower is small star-shaped and blooms early in the season. Does best in a moist, shady location. Pkt., 10c; 3 pkts., 25c.

See page 26 for plants of this perennial.

**MIRABILIS** (Marvel of

Peru or Four O'Clock)

(A)—A rapid growing annual making a luxuriant growth of glossy foliage. Grows about 2 feet high and is very useful as an annual hedge. Blooms profusely in many colors. Flower opens in the late afternoon. Pkt., 10c; 3 pkts., 25c.

**MOONFLOWER** — See Ipomoea.

**MORNING GLORY** — See Convolvulus.

**MOURNING BRIDE**—See Scabiosa.

**NASTURTIIUM** (A)—One of the most common of all annuals. Noted for its ornamental foliage as well as its brilliant flowers. The flowers may be had in many shades.

They are excellent for cut flowers and the more they are picked the more they bloom.

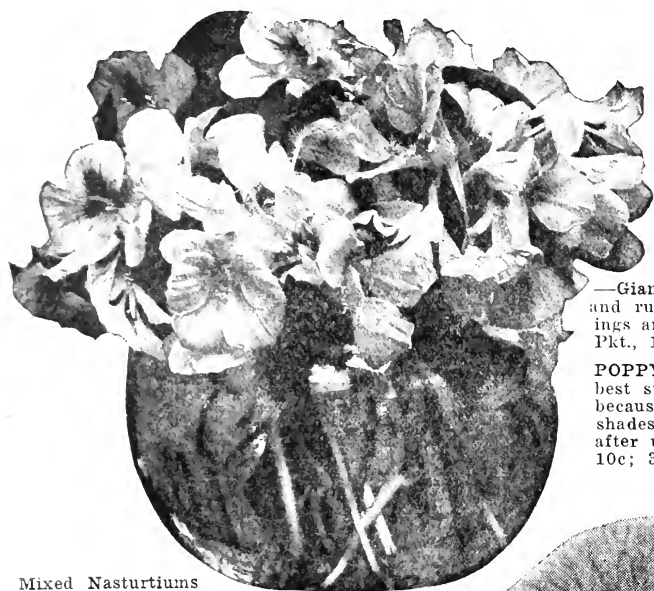
There are two principal classes of Nasturtiums—tall or climbing, and dwarf. The dwarf varieties are very good for borders or edgings.

(Continued on page 20)



Nasturtium





Mixed Nasturtiums

(Continued from Page 19)

The climbing sorts are useful for covering banks or walls, or in window boxes.

**BRUNS' FINEST MIXED DWARF NASTURTIUMS**—This mixture contains all the best dwarf varieties, combined in well balanced proportions to produce a harmonizing color effect.  $\frac{1}{4}$  lb. 40c; oz., 15c; pkt., 10c.

**BRUNS' FINEST MIXED CLIMBING NASTURTIUMS**—All that is desired in climbing Nasturtiums is contained in this mixture. Grown by a Nasturtium expert in separate varieties and blended together to give the most pleasing effect.  $\frac{1}{4}$  lb., 40c; oz., 15c; pkt., 10c.

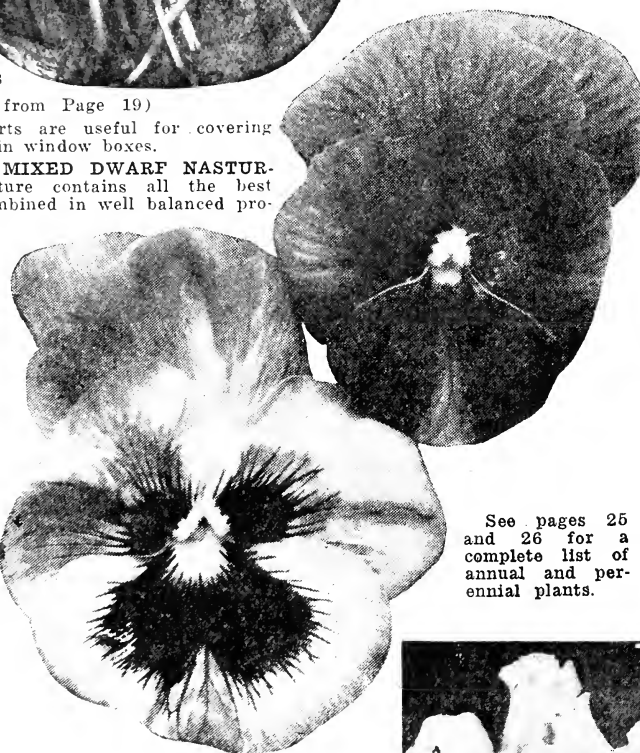
**NICOTIANA** (Sweet Scented Tobacco Plant) (A)—The flower is long, slender, trumpet-shaped, which opens in the late afternoon and throws off a powerful but very pleasing odor. Easy to grow and very effective. Pkt., 10c; 3 pkts., 25c.

**BRUNS' MAMMOTH PANSIES (A)**—Our Pansy seed combines all that is desired in this flower—richness and variety of coloring enormous sized blooms, and long period of bloom. All the best strains available are contained in our mixtures, combining almost every imaginable color from pure white to jet black, and blotched and variegated. Pansies do best in a rich soil and cool damp situation. A good time to plant is in August or September. Protect in the winter by covering thoroughly, or transplanting to a coldframe. They will then be one of the first flowers to bloom in the spring.

—Bruns' Mammoth Pansy Mixture—Pkt., 10c; 3 pkts., 25c.

**PHLOX (A)**—A beautiful and showy annual. Flowers borne in clusters and may be had in a wide range of colors. Sow seed in early May where plants are to stand and thin out to one foot apart. They do best in a moderately rich loam, in a sunny or partially shady situation. Plant grows 12 to 18 inches high.

—Drummond's Mixed. Pkt., 10c; 3 pkts., 25c.



Bruns' Mammoth Pansies

**PETUNIAS (A)**—For long duration of bloom the Petunia has no equal. From early summer until the snow flies it furnishes a constant and gorgeous display of handsome and sweet-scented flowers. We recommend only the large flowering varieties. The small types are less desirable because of their weedy nature and flashy flowers. Sow seed indoors early and transplant in the open later, or sow outdoors in May where the plants are to stand.

—Large Flowering Double. About 25 per cent will come double and the balance will be of large, ruffled, single types. Pkt., 10c; 3 pkts., 25c.

—Giants of California. These Petunias are very large and ruffled. Contain many colors, and peculiar veinings and markings. The best of the large single types. Pkt., 10c; 3 pkts., 25c.

**POPPY (A)**—Single Annual Mixed. Contains all the best strains of the single sorts. Especially attractive because of its large, satiny petals in many delicate shades. Plant early in the spring and each month thereafter until July to obtain succession of bloom. Pkt., 10c; 3 pkts., 25c.

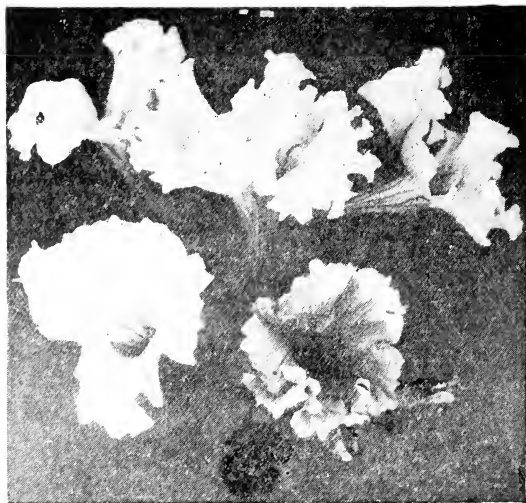
—Double Annual Mixed. Includes many improved double, large-flowering varieties. Some are of the peony-flowered type and others have broad, ruffled or fringed petals. Some are of brightest shades, while others are quite modest. Pkt., 10c; 3 pkts., 25c.

—Oriental Poppy (P). The Oriental Poppy is one of our most showy and beautiful perennials. The flowers are a deep red and bloom profusely during the mid-summer. Plants grow about 3 feet high and produce a very fine effect when planted among shrubbery or in borders. Should be in every perennial garden. Pkt., 10c; 3 pkts., 25c.

**RICINUS (Caster Bean)**

(A) — A strong growing foliage plant of tropical appearance. Good for a center piece in beds of tall flowers. Also much desired for backgrounds, or hiding unsightly objects. Caster Beans are very good for keeping moles out of the garden.  $\frac{1}{4}$  lb., 40c; oz., 15c; pkt., 10c.

See pages 25 and 26 for a complete list of annual and perennial plants.



Petunias



**PORTULACA (Rose Moss) (A)**—If you have some space that you think is too hot and dry for plants of any kind, plant in it Portulaca and you will get splendid results, for it is especially adapted to just such places. Almost everyone knows Portulaca and has seen it growing and blooming at some time or other. Who could pass it by without noticing it or without marveling at its beautiful flowers in their many clear and distinct shades, not gaudy but modestly attractive? This beautiful, dwarf, spreading annual should be in every flower garden.

—Single. Pkt., 10c; 3 pkts., 25c. —Double. Pkt., 10c; 3 pkts., 25c.

**SALPIGLOSIS (Painted Tongue) (A)**—Noted for its long trumpet-shaped bloom with curiously veined petals. Grows about 18 inches high. Does best in a rich loam. Easy to grow. Pkt., 10c; 3 pkts., 25c.

**SALVIA SPLENDENS (Scarlet Sage) (A)**—No flower rivals the Scarlet Sage in producing a mass of fiery-red flowers. Comes into bloom in July and is literally a blaze of dazzling red till frost. Much used for planting near the base of the house or along sidewalks. Grows about 3 feet high. Pkt., 10c; 3 pkts., 25c.

We can also furnish Salvia plants in season.

**SCABIOSA (Mourning Bride) (A)**—Although not so common as many of the annuals, is nevertheless one of the best. The large double flowers are borne on long stems and when cut and placed in water will keep for several days. They come in many colors, including white, pink, crimson, lavender, purple, violet and bi-colored. Sow the seed in the spring when danger of frost is past. Pkt., 10c; 3 pkts., 25c.

**SCHIZANTHUS (Butterfly Flower) (A)**—The flowers are butterfly-shaped, of rich and varied colors, and completely cover the plant. The foliage is of a delicate, fern-like texture, which adds to the attractiveness of the flower. Seed should be sown where plants are to stand as they are not easily transplanted. Pkt., 10c; 3 pkts., 25c.

**SHASTA DAISY**—See Daisy.

**SNAPDRAGON**—See Antirrhinum.

**STOCKS (Ten Weeks) (A)**—So called because it comes into bloom from seed in ten weeks. Flowers are usually double and closely clustered about an erect stiff stem. Very fragrant and in a wide variety of colors. Pkt., 10c; 3 pkts., 25c.



Mammoth Zinnia



Schizanthus

**"VANDER VEER PARK" MIXTURE OF SPENCER SWEET PEAS**—Our Sweet Pea seed is grown under contract by a Sweet Pea specialist in California. Our "Vander Veer Park" mixture of Spencers is made up of named varieties, grown separately and mixed to produce the most harmonizing and pleasing effect.

Almost every known shade of Sweet Peas has been blended into this mixture, including white, lemon, several shades of pink, salmon, orange, crimson, lavender, light blue, dark blue, purple, maroon, bicolor and striped. This is not an ordinary mixture of second-best varieties poorly proportioned, but positively of the best kinds, with mammoth sized blooms and long stems. We offer this in bulk also and advise buying it this way and planting freely. Few flowers produce a greater profusion of beautiful and fragrant flowers.

—"Vander Veer Park" Mixture of Spencer Sweet Peas.  $\frac{1}{4}$  lb., 75c; oz., 25c; pkt., 10c.

#### HOW TO GROW SWEET PEAS

Dig a trench 18 inches deep and fill in to 8 inches from the top with good rich soil, preferably mixed with well-rotted manure. Plant the seeds an inch apart and cover an inch deep. As the seedling grows, fill in around it until the trench is full. When well started, thin to 5 or 6 inches apart. Water freely. Keeping the flowers cut will lengthen the period of bloom.

**SWEET WILLIAM**—See Dianthus Barbatus.

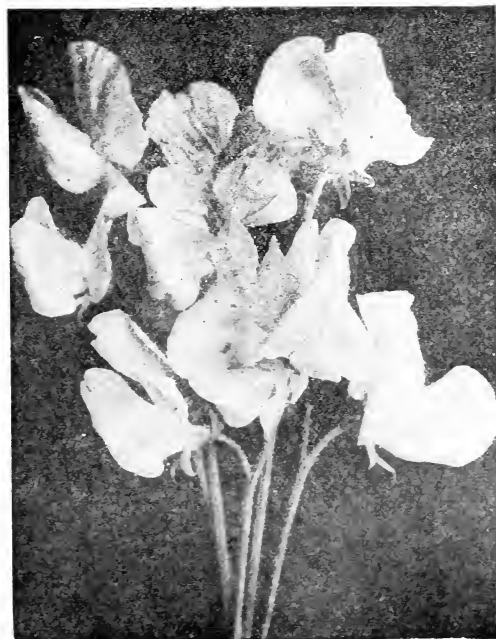
**VERBENA (A)**—The Verbena is equally good for beds or borders. It is easy to grow from seed and thrives in almost any good garden soil. The mammoth clusters of flowers in many beautiful shades are very attractive.

—Finest Mixed. Pkt. 10c; 3 pkts., 25c.

We will also have greenhouse-grown plants of the Verbena to offer in season.

**BRUNS' MAMMOTH ZINNIAS (A)**—These are the large-flowering varieties, producing blooms that are frequently 4 inches in diameter. Our mixture contains crimson, golden yellow, white, pink, purple and scarlet. Sow seed May first, in a deep, rich soil. Bloom from July till frost. Pkt., 10c; 3 pkts., 25c.

**NOTICE**—See pages 25 and 26 for both Annual and Perennial Plants.



Sweet Peas



# Flowering Bulbs and Roots for Spring Planting

## GLADIOLI

There are hundreds of varieties of gladioli, most of which are good. Many, however, resemble each other so closely that only an expert can distinguish them. We have selected from the entire group fourteen varieties which are generally conceded to be the cream of the list. These are highly dependable, and their clear, spirited and attractive coloring is unsurpassed. In making this selection the aim has been to represent all the principal shades, while at the same time avoid as much as possible near duplications.

**AMERICA**—Beautiful lavender pink. Flowers are large and compactly arranged on strong, tall spikes. Excellent for bouquets. Each, 5c; dozen, 50 cents.

**BARON HULOT**—Blue. Good sized flower. Best of the blue-shaded varieties. Each, 10c; dozen, \$1.00.

**CHICAGO WHITE**—Pure white with lavender markings in throat. Each, 7c; dozen, 70c.

**EMPRESS OF INDIA**—Dark maroon. The flowers medium sized. Each, 10c; dozen, \$1.00.

**HALLEY**—Salmon pink. Flowers are well formed and of large size. Early. Each, 6c; dozen, 60c.

**MRS. FRANCIS KING**—Bright red. Flowers large, and spikes tall. Very conspicuous and much used for bouquet work. Mid-season. Each, 5c; dozen, 50c.

**MRS. FRANK PENDLETON**—Salmon-pink, with blood-red blotches in the throat. Late. Each, 8c; dozen, 80c.

**NIAGARA**—Cream yellow. Very fine. Mid-season. Each, 8c; dozen, 80c.

**PANAMA**—Extra fine pink. Similar to America except larger. Mid-season. Each, 6c; dozen, 60c.

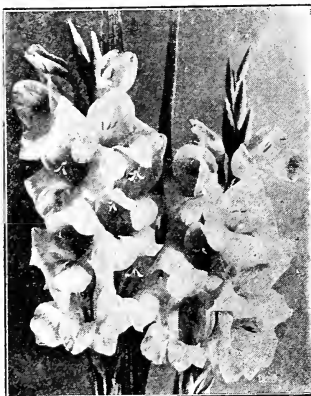
**PEACE**—White with violet throat. Mid-season. Each, 8c; dozen, 80c.



**PRINCE OF WALES**—Delicate salmon-pink. Very fine. Early. Each, 11c; dozen, \$1.10.

**SCHWABEN**—Soft clear yellow with little red strip on lower petals. Mid-season. Each, 8c; dozen, 80c.

**WAR**—Deep blood-red. Large, tall variety. One of the best. Mid-season. Each, 12c; dozen, \$1.20.



**WILLY WIGMAN**—Variegated. Creamy white with red blotches. Each, 9c; dozen, 90c.

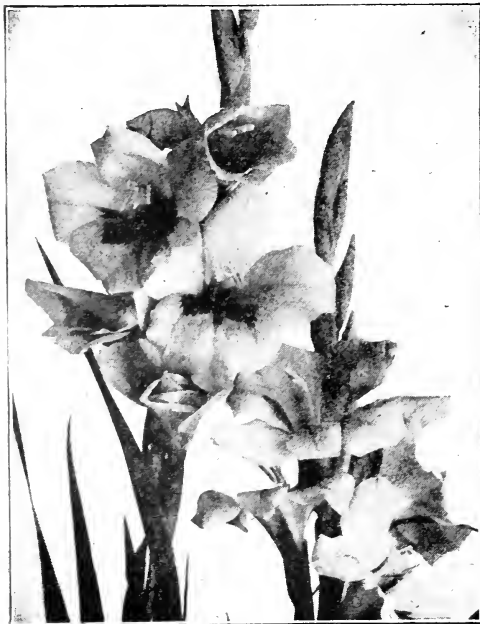
## "DAVENPORT" GLADIOLUS MIXTURE

This mixture contains all the above and others. As a rule, seed or bulb mixtures are undesirable for the reason that they are often times made up of culls or inferior varieties. Here is the exception. Our "Davenport" Gladiolus Mixture contains nothing but good varieties and in pleasing color proportions. There are light and dark shades, delicate and rich—all in one combination. In brief this mixture stands for wide variety of the best kinds at a very moderate price. Each, 5c; dozen, 50c; 100, \$3.90.

## HOW TO GROW GLADIOLI

The culture of gladioli is very simple and little need be said. Anyone who can grow potatoes can grow gladioli. They do well in almost any soil, but of course are appreciative of plenty of fertility. Where this is lacking an application of well-rotted manure or commercial fertilizer will affect a ready response in growth and bloom. Prepare the ground deeply and you have the ideal seed bed.

Gladioli can be planted from early spring till July. The blooming season may be prolonged throughout the summer by making plantings about every two weeks. Plant either in rows or broadcast fashion. When planted in a small way the latter is the more common method, the bulbs being placed about 6 to 8 inches apart each way. In rows, plant about 3 inches apart and leave 18 to 24 inches between the rows. Cover the bulbs to a depth of five inches. Cultivate frequently to keep out the weeds and to conserve moisture. They will do the rest.





Canna

**CHAS. HENDERSON** — Brilliant scarlet, with flame-yellow throat. Height, 4 ft. Each, 7c; dozen, 70c.

### M'CLELLAND HEIGHTS CANNA COLLECTION

#### AND SUGGESTED PLANTING SCHEME

7 Florence Vaughan (center and first row)-----	\$ .42
12 King Humbert (second row)-----	1.20
19 Yellow King Humbert (third row)-----	1.90

Total ----- \$3.52

Planting Distance—Rows, 18 inches apart; plants in rows, 18 inches apart.

The plan as suggested here should produce a splendid effect if carried out. It provides for tallest varieties in center, and alternating colors of foliage and blossoms.

### TUBEROSES

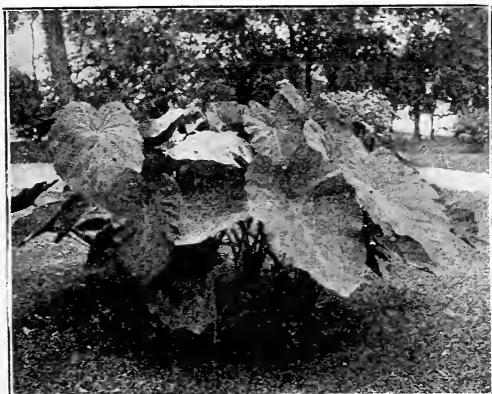
**EXCELSIOR DOUBLE PEARL**—Flower pure white, double, and delightfully fragrant. The long-stemmed flower spikes are much used for cut flowers. Plant in good ground in May, covering the bulb about one inch with soil.

Mammoth Size Bulb. Each, 8c; dozen, 80c.

First Size Bulb. Each, 5c; dozen 50c.

### CALADIUM--ELEPHANT'S EAR

Noted for the immense size of the leaves, which often are three to four feet across. A fine effect is produced when planted singly in the open lawn or in corners of the house or yard. Also very appropriate for bordering tall growing cannas. Prepare the ground deeply before planting. Water freely during the summer. If the bulbs



Caladium

## CANNAS

### BRONZE FOLIAGE

**KING HUMBERT**—By many considered the finest of all Cannas. The flower is a beautiful velvety scarlet, and in combination with the broad purple-bronze leaves produces a pleasing effect. Height, 4 to 5 feet. Each, 10c; dozen, \$1.00.

**WYOMING**—Rich orange-colored flower. Height, 6 to 7 feet. Each, 6c; dozen, 60 cents.

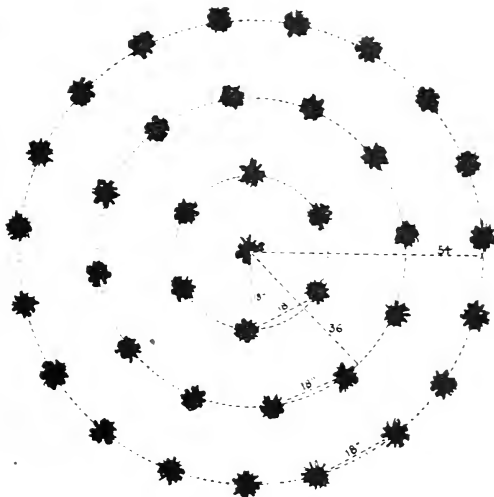
### GREEN FOLIAGE

**YELLOW KING HUMBERT**—Positively the finest of the yellow-flowered varieties. Produces extra large flowers of a beautiful, golden yellow, spotted with red. Combine nicely with the deep green foliage. Height, 4 feet. Each, 10c; dozen, \$1.00.

**HUNGARIA**—Best of all pink varieties. Produces trusses of immense size of a beautiful rose-pink. A dwarf and compact grower. Height, 3 to 3½ feet. Each, 12c; dozen, \$1.20.

**FLORENCE VAUGHAN**—A tall growing, yellow-flowered canna. Fine for center of canna beds. Height, 5 feet. Each, 6c; dozen, 60c.

**MADAM CROZY**—Scarlet, with rich yellow border. Height, 4 feet. Each, 6c; dozen, 60c.



are taken up in the fall and stored in a warm place over winter they can be planted again the next spring.

Mammoth Size Bulb. Each, 25c; 3 for 70c.

Large Size Bulb. Each, 18c; 3 for 50c.

Medium Size Bulb. Each, 12c; 3 for 35c.

### ISMENE CALATHINA

Plant grows 3 feet high. Flower is pure white. Easy to grow. Large bulb. Each, 15c; 3 for 40c.

### MADEIRA VINE

A rapid climber covering a large space in a short time. Flowers are small but delightfully sweet-scented. Leaves are heart-shaped and of a light green color. Take up the tubers in the fall and store the same as potatoes.

Large Size Tubers. Each, 6c; doz., 60c.

### CINNAMON VINE

One of the best of climbers grown from tubers. Has very attractive bright green, glossy foliage, and cinnamon-scented white flowers. Tubers need not be taken up in the fall as they are perfectly hardy.

Small Tubers. Each, 6c; doz., 60c. Large Tubers. Each, 10c; doz., \$1.00.



Tuberose

## HARDY LILIES

The varieties we list are all perfectly hardy, and once planted they increase in size and beauty each succeeding year. Plant bulbs deeply in well-drained sandy soil.

**SPECIOSUM RUBRUM**—A very attractive variety, bearing large flowers 4 to 6 inches in diameter. White with purple-red spots. Each, 30c; doz., \$3.00.

**LILIUM AURATUM** (Gold-banded Lily of Japan)—White with crimson spots, and a clear golden band running from the throat to the tip of each petal. Fragrant. Each, 30c; doz., \$3.00.

**LILIUM TIGRINUM** (Tiger Lily)—Flower salmon-red, spotted purple. Grows 3 feet high. Easily grown and extremely hardy. Each, 25c; doz., \$2.50.

## OXALIS

A dwarf growing plant especially useful for borders or massing. Also good for pot culture. The foliage makes a dense growth and is very attractive. We can furnish these in RED, WHITE or PINK. Either color, doz., 40c; 25 for 90c; 100 for \$3.00.

## DAHLIAS

### SHOW TYPE

Dahlias of this type have densely double, globular flowers, with petals more or less quilled, and spirally arranged.

**RED HUZZAR**—Pure, bright red. A very good one for the garden. Each, 20c; dozen, \$2.00.

**MRS. WELLESLEY**—Cream, tipped crimson. Each, 25c; dozen, \$2.50.

**DREER'S WHITE**—Pure glistening white. Considered the finest white show variety. Each, 20c; dozen, \$2.00.

**DREER'S YELLOW**—Beautiful sulphur yellow. Flowers of enormous size, perfectly ball-shaped, and on long stems, making it good for cut flowers. Each, 20c; dozen, \$2.00.

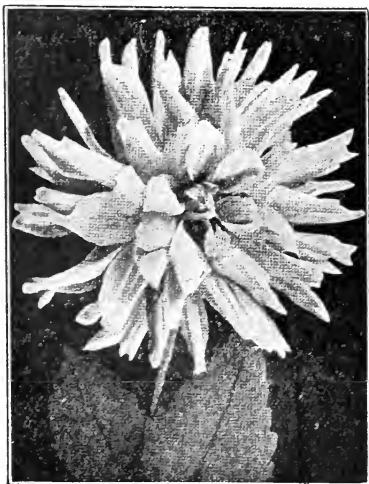
### CACTUS TYPE

These have long, narrow, incurved or twisted petals.

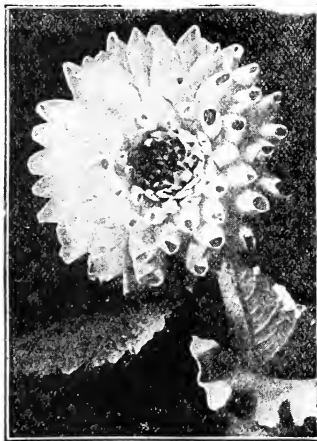
**FERDINAND OLIVET**—Maroon with black center. Good for garden or cut flowers. Each, 20c; dozen, \$2.00.

**NIBELUNGENHORT**—Old rose. Flowers large with petals curled and twisted. Each 35c; dozen, \$3.50.

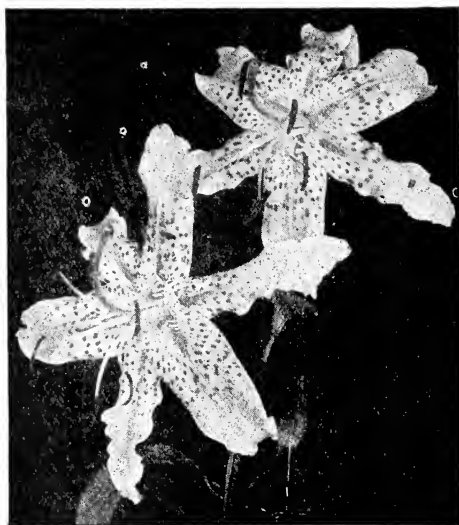
**SUCCESS**—Pure yellow, with long, twisted incurved petals. Each, 20c; dozen, \$2.00.



Cactus Dahlia



Show Dahlia



Speciosum Rubrum Lily

**RHEINKOENIG**—Pure white. A very good one for garden or cut flowers. Each 25c; doz., \$2.50.

### DECORATIVE TYPE

These have flat, double flowers, with broad flat, loosely arranged petals. Without formality or stiffness.

**SYLVIA**—Pink with white center. Each, 15c; dozen, \$1.50.

**SOUVENIR DE GUSTAVE DOAZEN**—Pure red. Flowers of mammoth size. Each, 25c; dozen, \$2.50.

**MISS MINNIE McCULLOUGH**—Buff color. Fine for cut flowers. Each, 25c; dozen, \$2.50.

**PINK AND WHITE DECORATIVE**—Good, unnamed varieties. Each, 18c; dozen, \$1.80.

**YELLOW DECORATIVE**—Mixed varieties in various shades of yellow. Each, 18c; dozen, \$1.80.

### POMPON TYPE

These are small-flowered and have fine petals.

**CATHERINE**—Primrose yellow. Each, 16c; dozen, \$1.60.

**PRINCE CHARMING**—Cream, tipped purple. Each, 16c; dozen, \$1.60.

**BOBBY**—Plum color. Each, 16c; dozen, \$1.60.

**LITTLE PRINCE**—Crimson, tipped white. Extra fine. Each, 20c; dozen, \$2.00.

## FALL BULBS

Bulbs of this class are planted in the fall; they bloom early in the following spring. In beauty of coloring and grace of form their flowers are unrivaled.

Practically all fall bulbs are grown in Holland, where bulb growing and marketing has become an extensive industry. Hence they are frequently referred to as Holland or Dutch bulbs. Our imports embrace a wide range of the choicest varieties of Tulips, Hyacinths, Narcissi, Jonquils, Crocus, Snowdrop, etc. Also the water-growing bulbs for indoor winter culture such as Paperwhite Narcissus, Chinese Sacred Lilies, etc. These bulbs arrive about September 1st and are on sale during the fall months.

We are preparing a special Fall Bulb leaflet giving a complete list of varieties, descriptions, directions for growing, etc. This leaflet will be ready in August. Be sure to ask for a copy if you fail to receive it.

# Plant Department

In season we carry a large stock and wide assortment of plants of all kinds. Practically all our plants are twice or thrice transplanted, and thoroughly hardened off. Unlike the spindling seedlings, they are stocky and vigorous. Special care is given to keeping varieties true to name.

Make This Your Headquarters for Plants

## VEGETABLE PLANTS

For Description of Varieties See Vegetable Seed Department. Prices on Quantities Given on Request.

### EARLY CABBAGE

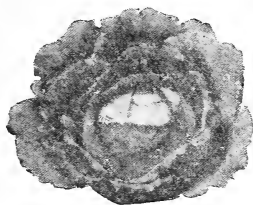
Jersey Wakefield, Charleston Wakefield, Copenhagen Market, Glory of Enkhuizen.

### LATE CABBAGE

Danish Ballhead, Premium Late Flat Dutch.

### RED CABBAGE

Mammoth Red Rock.  
Price, 15c per dozen, either variety.



Late Cabbage

### CAULIFLOWER

Early Snowball. Price usually 20c per dozen.

### KOHL RABI

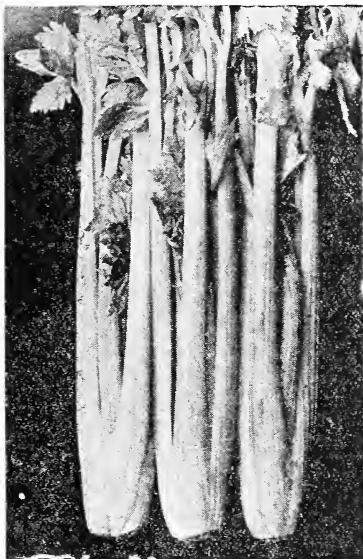
Early White Vienna. 15c to 20c per dozen.

### PARSLEY

Champion Moss Curled. Price usually 15c per dozen.

### SWEET POTATOES

Price 15c per dozen; 75c per 100.  
Prices on quantities given on request.



Stalk Celery

### CELERY

Stalk Celery, Rooted Celery. Price usually 15c per dozen.

### STRAWBERRY PLANTS

See Nursery Department.

### TOMATOES

Earliana, Chalk's Early Jewel, John Baer, Bonny Best, Dwarf Stone (Tree Tomato), Improved New Stone, Ponderosa, Matchless, Yellow Ponderosa, Preserving Tomato. Price usually 15c per dozen, either variety.

Individual plants in pots, 10c to 15c each.

### PEPPERS

Sweet Mango Pepper. 20c to 30c per dozen.

Cayenne (Hot) 15c to 25c per doz.



### EGG PLANT

Black Beauty or New York Purple. Price usually 20c per dozen.

## ANNUAL FLOWER PLANTS

For Bedding, Borders, Hanging Baskets and Cutting. Prices as given here are approximate and subject to change, being dependent on the size, manner in which they are put up, etc.

**GERANIUM**—Planted in 3 to 5 inch pots. In bud or bloom. 15c to 30c each, according to size.

**PETUNIA** — Potted separately. Single or double. 10c to 20c each.

**SNAPDRAGON**—In separate colors or mixed. Planted in flats. Price variable, usually 25c to 30c per dozen.

**SALVIA**—In flats, 20c to 30c per dozen. Individual plants in pots, usually 10c each.

**ASTERS**—In separate colors or mixed. Planted in flats. Usual price, 25c or 30c per dozen.

**PANSY**—Put up in baskets of one dozen each. Good color assortment. 60c per pasket.

**SWEET ALYSSUM**—Potted, at 5c to 10c each.



Aster

**LOBELIA**—Potted, at 5c to 10c each.

**AGERATUM**—10c to 15c each.

**IVY GERANIUM (Vining Variety)**—15c to 25c each.

**VINCA VINE**—Extra good for hanging baskets or porch boxes. 15c to 25c each, according to size.

**SPRENGERII FERN** — Vining form. Used for hanging baskets. Usually 15c each.

**WANDERING JEW**—Usual price, 15c each.

**CIGARETTE PLANT**—Potted. 10c to 15c each.

**VERBENA**—Potted. Usually 15c each.

**CANNA**—Usually 15c each.



## PERENNIAL FLOWER PLANTS

Descriptions of varieties given under Flower Seeds, Pages 15 to 21, inclusive.



Daisy

**CHRYSANTHEMUM**—White, red, pink and yellow. Each, 20c; 3 for 50c; 12 for \$1.90.

**COREOPSIS** (Tickseed)—Each, 15c; 3 for 40c; 12 for \$1.50.

**DAISY** (Shasta)—Each, 20c; 3 for 50c; 12 for \$1.90.

**DELPHINIUM** (Larkspur)—Belladonna. Each, 20c; 3 for 50c; 12 for \$1.90.

**DIANTHUS PLUMORIUS** (Garden Pinks)—Each, 20c; 3 for 50c; 12 for \$1.90.

**DIANTHUS BARBATUS** (Sweet William)—Mixed. Each, 15c; 3 for 40c; 12 for \$1.50.

**DIGITALIS** (Foxglove)—Mixed colors. Each, 25c; 3 for 65c; 12 for \$2.40.

**GAILLARDIA** (Blanket Flower)—Each, 20c; 3 for 50c; 12 for \$1.90.

Our Pet Department, listed on page 44, includes only the highest grade of animals. One or two pets should be in every home that houses a lover of dogs, cats, birds, etc.

These are hardy and live and bloom for several years. Once started they require little attention. With a few exceptions they do not bloom from seed till the second year, and for that reason many people prefer the plants, which flower abundantly the same season they are set out.

Our Perennial Plants are grown by a specialist. Most of the varieties listed here are two-year-old plants, and have strong, vigorous roots.

**AQUILEGIA** (Columbine)—Mixed. Each, 20c; 3 for 50c; 12 for \$1.90.

**CAMPANULA** (Canterbury Bells)—White, pink and blue in separate colors. Each, 25c; 3 for 65c; 12 for \$2.40.



Golden Glow

**GOLDEN GLOW**—Each, 20c; 3 for 50c; 12 for \$1.90.

**GYPSOPHILA** (Baby's Breath)—Each, 20c; 3 for 50c; 12 for \$1.90.

**HIBISCUS** (Mallow)—Red, pink and white in separate colors. Each, 25c; 3 for 60c; 12 for \$2.25.

**HOLLYHOCK**—White, maroon, red, pink, yellow in separate colors. Each, 15c; 3 for 40c; 12 for \$1.50.

**IRIS**—German.

—Canary—Yellow. Each, 12c; 3 for 30c; 12 for \$1.10.

—Florentina—Blue. Each, 12c; 3 for 30c; 12 for \$1.10.

—Florentina Alba—White. Each, 12c; 3 for 30c; 12 for \$1.10.

—Her Majesty—Pink. Each, 12c; 3 for 30c; 12 for \$1.10.



Coreopsis

See page 40 for Spraying Calendar. This table will tell you when and what to spray with in order to obtain the best results from your seeds and plants. Don't overlook this important matter.

**IRIS**, Japanese. Each, 20c; 3 for 50c; 12 for \$1.90.

**MYOSOTIS** (Forget-Me-Not)—Each, 15c; 3 for 40c; 12 for \$1.50.

**ORIENTAL POPPY**. Each, 25c; 3 for 65c; 12 for \$2.40.

**PHLOX**—White, pink, purple and red in separate colors. Each, 25c; 3 for 65c; 12 for \$2.40.

**SHASTA DAISY**—See Daisy.

**SWEET WILLIAM**—See Dianthus Barbatus.

Bees are profitable and can be raised with very little care, especially in the country and suburbs where great quantities of flowers and fruit are grown. See page 44 for a complete list of bee hives, frames, and supplies.



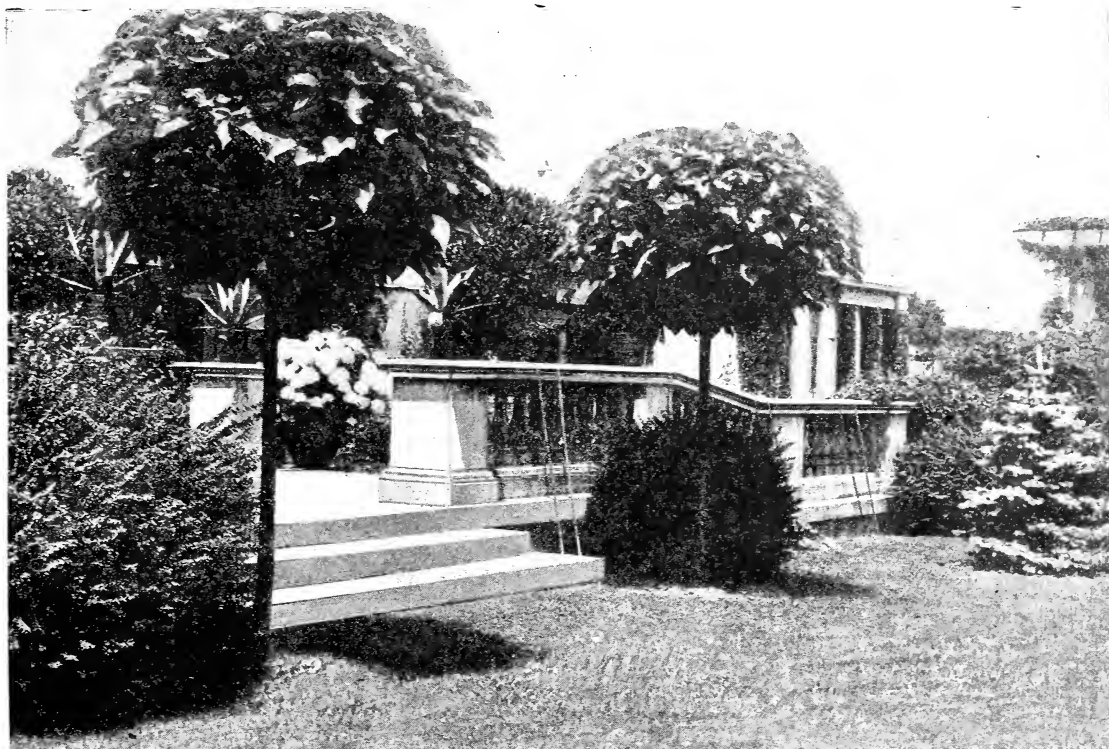
Phlox



Iris

# Nursery Department

Ornamental Shrubs, Hardy Climbing Vines. Roses, Fruit Trees, Small Fruits, Etc.



## ORNAMENTAL SHRUBS

**BRIDAL WREATH** (*Spirea Van Houttei*)—Flowers pure white, borne on long drooping sprays. Grown most extensively of all shrubs. Blooms in the spring but the foliage is attractive throughout the entire summer. Very effective for planting at the base of the house or porch. 3 to 4 ft. size, bushy. Each, 45c; 10 for \$4.00.

**DEUTZIA** (*Pride of Rochester*)—A desirable shrub of strong, hardy growth, bearing an abundance of beautiful racemes of double, pure white flowers. Each, 45c; 10 for \$4.00.

**GOLDEN BELL** (*Forsythia*)—Flowers are golden-yellow and bloom early in the spring before the leaves are out. One of the earliest of all shrubs to bloom. Each, 45c; 10 for \$4.00.

**HONEYSUCKLE** (*Pink Tartarian*)—Flowers are pink and borne in great profusion in late spring, followed by reddish-orange colored berries. Does best in a sunny location. Each, 40c; 10 for \$3.75.

**HYDRANGEA PANICULATA GRANDIFLORA**—Creamy-white flowers borne in immense panicles, and turning to pink or bronze in September. Grows 8 feet high. One of the finest of shrubs. Large size. Each, 90c; 10 for \$7.50.

**LILAC**—An old fashioned shrub but always popular.

Flowers are beautifully fragrant. We have this in white and purple. White Lilac, Each, 75c; 10 for \$6.75. Purple Lilac, Each, 50c; 10 for \$4.50.

**MOCK ORANGE** (*Syringa Coronarius*)—A vigorous tall growing, hardy shrub, bearing a profusion of beautiful white, orange-like flowers in May. Each, 40c; 10 for \$3.50.

**SNOWBALL** (*Viburnum Opulus Sterilis*)—This is the common Snowball bearing large, white, globular flowers. Grows 8 to 10 feet high. Each, 75c; 10 for \$6.50.

**SNOWBERRY**—A graceful shrub growing about 4 to 5 feet high, and covered with white or red berries. Very ornamental. Grows in almost any soil. White, Each, 40c; 10 for \$3.50. Red, Each, 40c; 10 for \$3.50.

**SPIREA ANTHONY WATERER**—Grows 3 ft. high and of round spreading nature. Flowers are large, rose-red, and borne in clusters. Bloom constantly throughout the entire summer. Each, 60c; 10 for \$5.00.

**TAMARIX**—Noted for its delicately fringed foliage and flowers. Grows to a height of 6 to 7 feet. Each, 50c; 10 for \$4.25.

**WEIGELA ROSEA**—Hardy, with profuse, rose-colored, trumpet shaped flowers. Reaches a height of 6 to 8 feet. Each, 75c; 10 for \$6.50.

## HEDGE PLANTS

**JAPANESE BARBERRY** (*Thunbergii*)—Excellent for hedging or planting in groups. Grows compactly. Bears bright red berries in the fall. Price \$28.00 to \$50.00 per hundred, depending on size and quantity.

**PRIVET, AMOOR RIVER**—This is the hardy variety of Privet. We do not recommend California Privet for it is of questionable hardiness in this latitude. One of the most popular and best of all hedges. Price, \$15.00 to \$30.00 per hundred, depending on size and quantity.

**SHRUBS THAT FLOWER IN MAY**—Honeysuckle, Lilac, Snowball, Bridal Wreath, Wistaria, Forsythia.

**IN JUNE**—Deutzia, Honeysuckle, Lilac, Snowball, Mock Orange, Weigela, Wistaria.

**IN JULY**—Spirea Anthony Waterer, Clematis, Hall's Japan Honeysuckle, Snowberry.

**IN AUGUST AND SEPTEMBER**—Hydrangea, Hall's Japan Honeysuckle, Clematis Paniculata.

### SHRUBS SUITABLE FOR SHADY PLACES

Barberry, Bridal Wreath, Deutzia, Forsythia, Privet, Snowberry.

## HARDY CLIMBING VINES

**AMERICAN IVY** (*Ampelopsis Engelmanni*)—A very rapid grower, having beautiful dark green foliage which assumes rich crimson hues in autumn. Two year plants, each, 25c; 10 for \$2.25.

**BOSTON IVY** (*Ampelopsis Veitchii*)—Leaves a little smaller than the American Ivy. The finest of all hardy climbing vines for covering houses, churches, public buildings, etc. Clings perfectly to any rock or brick wall. Two year plants, each, 25c; 10 for \$2.25.

**CLEMATIS JACKMANII**—This is the large purple-flowered variety. Flowers are star-shaped and from 4 to 6 inches in diameter. A profuse bloomer. Two year plants, each, 95c; 10 for \$8.00.

**CLEMATIS PANICULATA**—A small white-flowered variety. Blooms profusely in September. Very fragrant. Grows rapidly and is very hardy. Easiest to grow of all Clematis. Two year plants, each, 40c; 10 for \$3.50.

**HONEYSUCKLE, HALL'S JAPAN**—A strong, vigorous, evergreen variety with pure white flower changing to yellow. Very fragrant; covered with flowers from June to November. Each, 40c; 10 for \$3.50.

**WISTARIA**—A most beautiful climber of rapid growth, producing long pendulous clusters of pale blue flowers. When well established makes an enormous growth. Perfectly hardy. Each, 40c; 10 for \$3.50.

## PEONIES

### FESTIVA MAXIMA—

The most popular and best of all white peonies. Flowers are of immense size. Each, 50c; 10 for \$4.00.

**FELIX CROUSSE**—The best dark red peony. Each 90c, 10 for \$8.00.

### EDULIS SUPERBA—

An excellent pink peony. Large sized and fragrant. Each, 50c; 10 for \$4.00.

### PINK, UNNAMED —

Each, 40c; 10 for \$3.50.

### RED, UNNAMED —

Each, 60c; 10 for \$5.00.

### WHITE, UNNAMED—

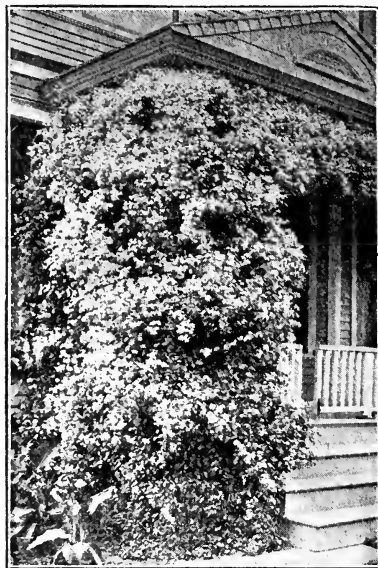
Each, 45c; 10 for \$4.00.



Felix Crouse Peony



General Jacqueminot



Clematis Paniculata

Hardy Perennial Flower Plants—See Plant Department.

## HARDY ROSES

### HYBRID PERPETUAL ROSE

This class of roses blooms more than once during the season, many of them continuously from June till September. It is by far the most valuable, if not the most beautiful, of all groups of roses. The varieties we offer are perfectly hardy and suitable for garden and bedding purposes.

### GENERAL JACQUEMINOT—

—Brilliant crimson, not full, but large and extremely effective; fragrant, and of excellent, hardy habit. 1 yr., 25c; 2 yr., 50c.

**PAUL NEYRON**—Deep rose-pink, very large, very full, somewhat fragrant free blooming. The largest variety known. Perfectly hardy and very desirable for the garden. 1 yr., 30c; 2 yr., 50c.

**WHITE AMERICAN BEAUTY**—Our best snow white rose. Splendid buds and immense flowers. 1 yr., 30c; 2 yr., 70c.

**OPHELIA**—Salmon-flesh color, shaded with rose. Large flowers, long stems, fine for cutting. 1 yr., 25c; 2 yr., 50c.

### DWARF (POLYANTHA) BUSH ROSES

These are dwarf-growing roses. Flowers are small and borne in clusters.

**BABY ORLEANS**—Beautiful geranium-pink. The finest of the pink Polyantas. 1 yr., 25c; 2 yr., 50c.

### HARDY CLIMBING ROSES

**WHITE DOROTHY PERKINS**—Pure white flowers in clusters. 1 yr., 25c; 2 yr., 50c.

**PINK DOROTHY PERKINS**—The flowers are a beautiful shell pink that does not fade. Very double, and borne in clusters. 1 yr., 25c; 2 yr., 50c.

**SHOWER OF GOLD**—A fast growing climber with beautiful deep golden yellow and orange flowers. 1 yr., 25c; 2 yr., 50c.

**CLIMBING AMERICAN BEAUTY**—Beautiful crimson, fragrant, and large size. One of the finest of climbers. 1 yr., 30c; 2 yr., 60c.

## HOME BEAUTIFYING

The principles of proper planting are not hard to master. The shrubs should be massed into corners and borders, and a selection made differing in height so that all of them can be seen and intermingle in effect, with their bloom + different seasons so that they are always interesting. Landscape planting is the frame of the picture; that final touch that changes your house to a home.

# FRUIT TREES

## APPLES

Large size, well-shaped trees, either variety, 85c each; 10 for \$7.50.

### SUMMER VARIETIES

**EARLY HARVEST**—Fruit medium size, nearly round, somewhat flattened; color clear, waxy yellow; good flavor. July.

**YELLOW TRANSPARENT**—The tree is a hardy, upright grower; fruit medium size, with rich, transparent yellow coloring. Flesh juicy, sub-acid.

**RED JUNE**—Medium sized, red; flesh white, tender; juicy, good flavor. Last of June.

**DUCHESS**—Large, streaked red and yellow. Tender and juicy. Tree a vigorous, fine grower and abundant bearer.

### FALL VARIETIES

**FAMEUSE** (Snow Apple)—Medium size, roundish; crimson, sometimes striped. Flesh snowy white; very tender, juicy, mild, sub-acid.

**MAIDEN BLUSH**—Large, smooth, regular, evenly shaded red cheek on a pale yellow ground. Flesh white, tender, with a pleasant sub-acid flavor. Good bearer.

**WEALTHY**—Large... round;... red; very handsome; fine quality.

### WINTER VARIETIES

**DELICIOUS**—Fruit large, nearly covered with brilliant, dark red; flesh fine grained, crisp, juicy, melting and delicious. Good keeper.

**JONATHAN**—Large size, waxy yellow, often wholly covered with brilliant red. Flesh whitish yellow, juicy, and with spicy flavor. Quality of the best.

**GRIME'S GOLDEN**—Best yellow winter apple. Tree strong, thrifty grower. Flesh yellow, firm, rich flavored.

**WINESAP** (Stayman's) — Large, roundish; deep red, striped with lighter shade. Keeps well. Flesh white and tender, with mild, rich, spicy flavor.

## CRAB APPLES

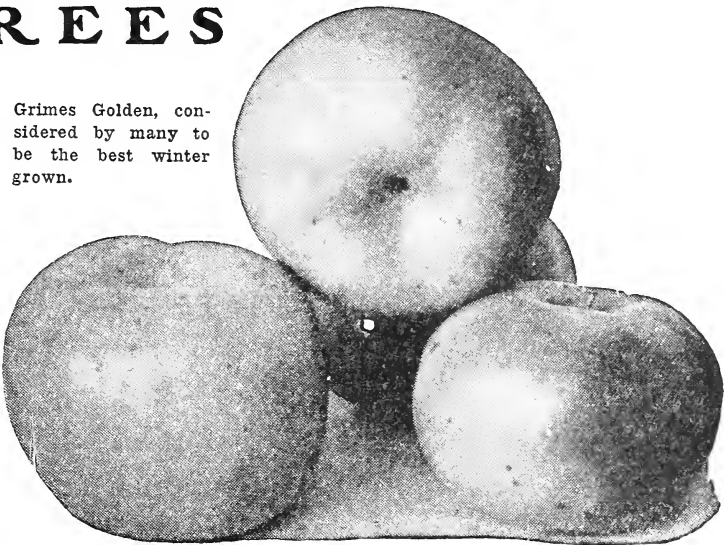
Price same as apples.

**WHITNEY**—Tree thrifty, upright grower. Fruit large, striped on carmine. Flesh firm, juicy, of pleasant flavor.

**HYSLOP**—Fruit large, nearly round; color dark rich red on yellow ground. Very good flavor.

**TRANSCENDENT** — Fruit large, round, colored rich yellow, shaded with red.

**Grimes Golden**, considered by many to be the best winter grown.



## CHERRIES

Large size, well-shaped trees, either variety, each, \$1.00.

**EARLY RICHMOND**—Most popular and productive of all varieties. Early, and abundant bearer. Fruit medium size, juicy, and sprightly acid flavor.

**ENGLISH MORELLO** — A late cherry. Fruit large, round, nearly black when ripe.



Early Richmond

## PEARS

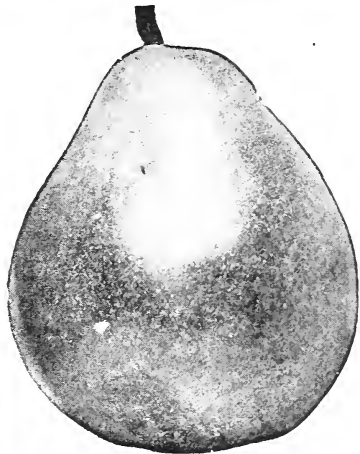
Either variety, \$1.00 each, except Kieffer, at 85c each.

**BARTLETT**—Large size, with beautiful blush next to the sun; buttery, juicy and high flavored.

**DUCHESS**—Very large, oblong, dull greenish yellow, very juicy, buttery.

**SECKEL**—Small in size, but extra fine quality.

**KIEFFER**—One of the best for canning and preserving.



Kieffer Pear

## PLUMS

Either variety, each, \$1.00; 10 for \$9.50.

**ABUNDANCE**—Large, peach-shaped; rich cherry color when ripe. Sweet, juicy, and excellent quality.

**BURBANK**—Large, nearly globular; clear cherry red; flesh deep, yellow, rich, very sweet with a peculiar and agreeable flavor.

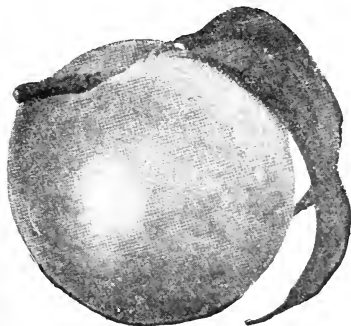
**SHROPSHIRE DAMSON**—A plum of fine quality. Fruit purplish black, oval shape. Very productive.

## PEACHES

Large size tree, each, 50c; 10 for \$4.50.

**ELBERTA**—Large, yellow with red cheek. Of excellent quality. Freestone. The most popular market peach.

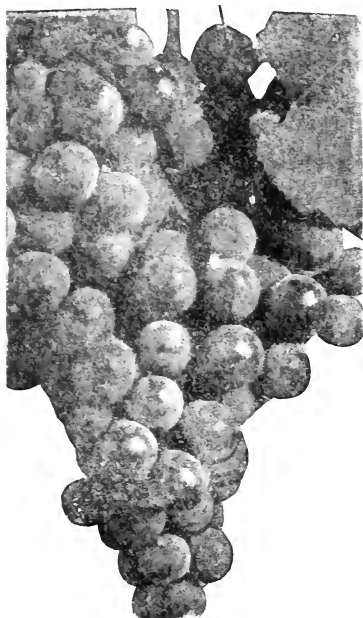
**CHAMFION**—The earliest freestone. Size large; flavor delicious, juicy, rich, sweet. Color creamy white with red cheek.



Champion Peach



# SMALL FRUITS



Concord Grapes

## GRAPES

Our grapes are 2-year-old No. 1 grade plants. 1-year-old or No. 2 grade are cheaper. Bear this in mind when comparing prices. Prices on large quantities on request.

**AGAWAM**—Large, red berry of excellent flavor. Bunches large. Very vigorous and productive. Each, 25c; 10 for \$2.00.

**CONCORD**—Grown more extensively than any other. Bunch large, compact and shouldered; berry large, round, almost black, juicy and very sweet. Each, 20c; 10 for \$1.60.

**WORDEN**—Berries very large, of extra good quality. Color same as Concord. Each, 25c; 10 for \$2.00.

**NIAGARA**—The best of the white varieties. Excellent quality. Each, 25c; 10 for \$2.00.

## GOOSEBERRIES

**DOWNING**—Best of the entire list. Fruit very large, juicy and fine flavor. Prolific. 2-yr. plants, each, 25c; 10 for \$2.00. Prices on quantities on request.

## CURRENTS

Our Currants are strong 2-year-old plants.

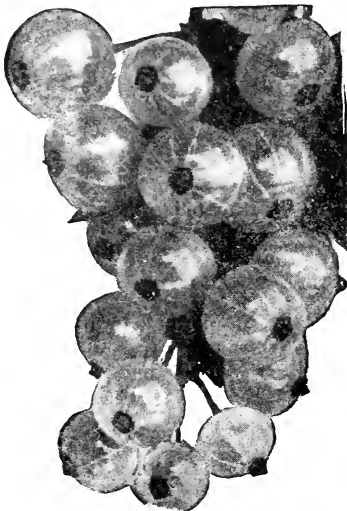
**CHERRY**—Largest and best of all red currants. Plant very vigorous and productive. Each, 20c; 10 for \$1.60. Price on larger quantities on request.

**WHITE GRAPE**—The finest of the white sorts. Very large and sweet. Each, 20c; 10 for \$1.60.

## RASPBERRIES

**CUMBERLAND**—Largest black raspberry known; unusually strong grower, and perfectly hardy. The most profitable raspberry grown. Each, 6c; 10 for 50c; 100 for \$3.75.

**CUTHBERT**—The best and most widely planted red raspberry. Large, conical, rich crimson. Fine quality and very productive. Each, 6c; 10 for 50c; 100 for \$3.75.



White Grape Currants

## BLACKBERRIES

**SNYDER**—The old standard, very hardy. Berries medium size, juicy, rich. Each, 9c; 10 for 80c; 100 for \$6.50.

## ASPARAGUS

**WASHINGTON RUST PROOF**—A new variety developed by the United States Department of Agriculture. Nearly rust free. An extra good one. One-year roots, 10 for 60c; 50 for \$2.25.

**COLUMBIAN MAMMOTH WHITE**—A good white variety. 10 for 30c; 50 for \$1.00; 100 for \$1.75; 1000 for \$12.50.

**FALMETTO**—Standard, large, green variety. 10 for 30c; 50 for \$1.00; 100 for \$1.75; 1000 for \$12.50.

## RHUBARB ROOTS

Large 2-year roots, each 10c; 10 for 80c; 100 for \$7.00.



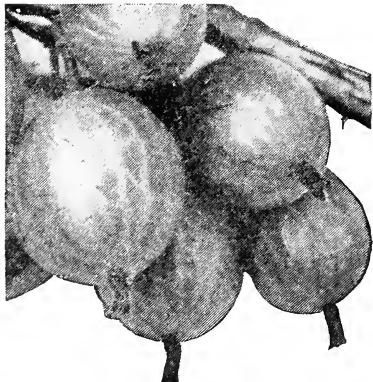
Cuthbert Raspberries

## STRAWBERRY PLANTS

Our Strawberry Plants are grown by a strawberry plant specialist. They are field propagated and have strong, vigorous crowns and roots. Do not wet tops or crowns of plants when received as this will cause them to rot.

**SENATOR DUNLAP**—A very heavy bearer, of good size, and of a beautiful dark red color. One of the best for either home or market. 25 for 45c; 100 for \$1.50; 500 for \$6.00; 1000 for \$10.00.

**PROGRESSIVE EVERBEARING**—These commence to bear the same year they are set out. Successive pickings can be made from June till frost. They do not yield so many to a picking, however, as the other varieties. 25 for 75c; 50 for \$1.25; 100 for \$2.25.



Downing Gooseberries

## WE DO NOT REPLACE NURSERY STOCK

Why? Because it isn't fair to you. In most cases trees and shrubs die because of carelessness in setting out or neglect afterwards. If we had to replace them, we would be compelled to increase the price. Why should you pay for the other man's negligence.

Some firms offer to replace stock at a reduction, but if you will compare prices you will find that they can afford to do so.



# FARM SEEDS

## WE MAKE A SPECIALTY

of farm seeds. We were raised on a farm and have had first-hand experience in farming. We grew up with the corn, and know the problems of the farmer. Our experience with farm seeds has come through growing them.

## OUR FIELD SEED PLANT

is located at Sigourney, Iowa. Here we have one of the best equipped field seed plants in the country. Practically all our seed corn, small grains, clovers, timothy, and certain other farm seeds are prepared for seed purposes at this plant. The most modern seed cleaning machinery has been installed so that we are enabled to thoroughly clean and prepare all seeds before they go out. The importance of this is obvious, for seeds contaminated with weeds and other foreign matter may be the source of long grief to the farmer who sows them.

## SEED CORN

No other single item receives as much of our attention as seed corn. It is now eighteen years since we ventured into the seed corn business. During that time we have sold many thousand bushels to farmers of southern Iowa. But of greater significance than the number of bushels sold is what we have accomplished in seed corn improvement. Much time has been spent in the development of a better corn. The results have been gratifying and our efforts have been well repaid. Today Bruns' high yielding varieties are being grown exclusively on hundreds of farms. Each year we receive many unsolicited reports of remarkable yields obtained by growers of our corn.

Practically all our seed corn is grown in the vicinity of Sigourney, Iowa. Part of it is grown on our own farm and the balance by responsible growers whom we furnish with seed of our own selection. All work connected with the selection, growing, and preparing of our seed corn is under the direction of A. R. Bruns.

**THE PRICE OF GOOD SEED CORN** is usually much less than its actual worth. If it will increase your yield by only a few bushels per acre it is cheap at even \$10.00 per bushel. No other crop can be planted so cheaply as



OUR FIELD SEED PLANT

## PRICES ON FARM SEEDS

Prices on farm seeds usually fluctuate considerably, and it being impossible to predict future prices accurately, they have necessarily been omitted entirely. Current prices, therefore, can be had on request. You can depend on our prices being consistent with quality. We guarantee them as low as anywhere value is considered. Prices higher than ours are unnecessary.

corn, and yet it is our most valuable crop. It costs less than fifty cents per acre to plant Bruns' high yielding corn and in many cases it will increase the yield by ten to twenty-five bushels per acre. Our corn has been planted in this vicinity for the past few years and not infrequently customers have reported an increase of twenty-five bushels per acre over their own variety. The price of such seed corn, therefore, is certainly of little significance. To plant questionable corn because the cost is a little less is obviously poor economy.

## BRUNS' YELLOW DENT

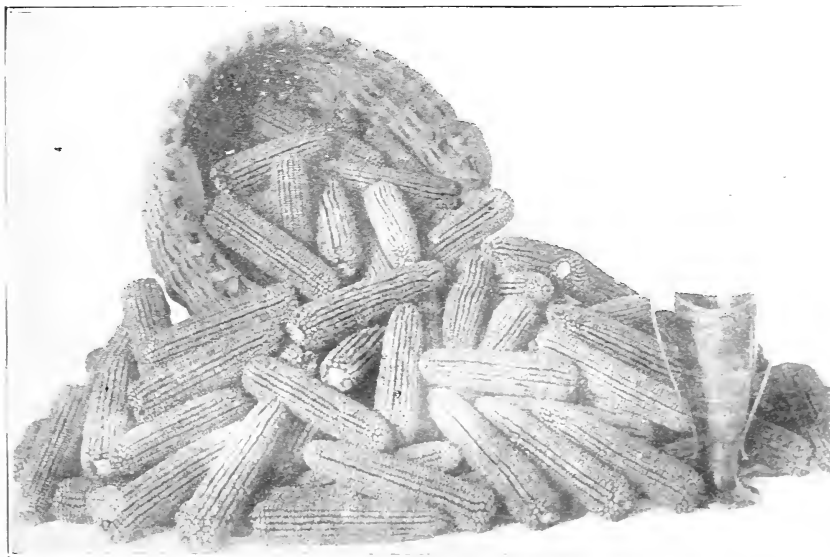
### THE BEST IN SEED CORN

This is our best main-crop variety. It has been bred for high yields and in this respect is in a class by itself. We have now spent eighteen years in the improvement of this corn. To begin with it was a good strain of Reid's but by careful selection and improvement throughout these years we have developed a distinct type.

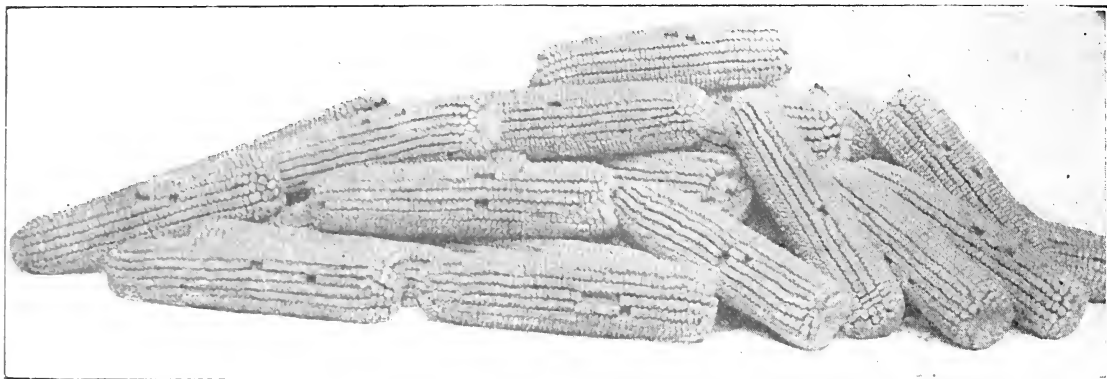
**BRUNS' YELLOW DENT** matures in 110 to 115 days. The ear is medium in size rather than extremely large. We think you will readily see the importance of this, for inasmuch as the extra large varieties require a longer growing season there is danger of their failure to mature. A medium sized ear is certainly worth more than a large chaffy, immature ear. What we are aiming at is the largest ear that will safely mature under ordinary conditions. This corn is noted for its deep grain and small cob. This helps to explain the high yields which not infrequently are reported by customers to exceed one hundred bushels per acre.

We expect to have a bigger and finer supply of this corn to offer this year than ever before. For the man who wants a fancy corn that is likewise most profitable there is nothing, we believe, equal to **BRUNS' YELLOW DENT**.

**SOMEONE IN YOUR NEIGHBORHOOD IS GROWING BRUNS' YELLOW DENT. ASK HIM WHAT HE THINKS OF IT.**



**BRUNS' YELLOW DENT**—This bushel awarded first prize at the Iowa State Corn Show in 1917. Grown on our farm at Sigourney, Iowa.



Iowa Silver Mine

### IOWA SILVERMINE

IOWA SILVERMINE is better adapted to this locality than any other variety of white corn. Ordinarily it will mature in 100 to 105 days. The ear is medium in size, has a large, roughly dented kernel, and small cob. Somewhat smaller than Johnson County White but earlier and much more dependable. The shape and uniformity of the kernel makes it work to perfection in an edge drop planter.

We have been working on a strain of Silvermine for a number of years and have developed a variety that is high yielding and entirely dependable. On thin ground it will outyield any variety we know of. If you are a grower of white corn there is nothing we can recommend more highly than our IOWA SILVERMINE.

### IMPROVED EARLY CALICO

This is an old variety that years ago was used for main crop. Our CALICO is an improvement over the old strain and is a profitable variety to grow. It is very reliable because of its earliness, maturing easily in 100 days under favorable conditions. Yet in spite of its earliness it produces a big ear and a heavy yield. We have had yields on our farm of 80 bushels per acre. The cob is a little large but carries a deep grain, which is of a speckled red and white appearance.

IMPROVED EARLY CALICO is a very vigorous grower. The stalk is quite heavy and produces more foliage than any other variety we know of. For this reason it is particularly good for ensilage purposes. The remarkable thing about it, however, is the big ear and big yield considering its earliness.

### BRUNS' NINETY DAY YELLOW

We are now having this corn grown for us in northern Iowa. Heretofore, we were growing it in this latitude, but due to the long growing season it showed a tendency to lose its earliness within a few years. We can now safely recommend it for planting as late as June 20.

The type resembles Bruns' Yellow Dent, but of course produces a smaller ear and shorter grain. However, it is a good yielder considering its earliness. Especially desirable for last planting, when it gets too late for the big varieties. Also for fields intended for hogging down early in the fall.

### ENSILAGE CORN

Either BRUNS' YELLOW DENT or IMPROVED CALICO are good for ensilage purposes. Both make a strong growth and produce a large tonnage of ensilage. There are certain other varieties that are claimed to grow bigger, but they are very late and too often are caught by freezing before the ear is properly developed. To be a good ensilage corn it should mature, or nearly mature, as well as make a big growth. In our experience, BRUNS' YELLOW DENT or IMPROVED CALICO comes nearer to filling the bill than anything else we have found.

### SEED CORN GERMINATION GUARANTEE

We guarantee our seed corn to test not less than 95 per cent. You have fifteen days to test it or examine it in any way you wish. If it fails to do so or is in any way unsatisfactory you have the privilege of returning it and we will refund your money. However, we cannot guarantee a stand in the field, and when the corn is planted our guarantee ends. Weather conditions, methods of planting, insects, etc., over which we have no control, make it impossible for us to guarantee the corn in the field.

### PLANTING CHART OF BRUNS' SEED CORN

#### BRUNS' YELLOW DENT—

Plant before May 25. Our best variety for main crop. Also a good ensilage corn. 110 to 115 days.

#### IOWA SILVERMINE—

May safely be planted up till June 1. Very good white variety. 100 to 105 days.

#### IMPROVED EARLY CALICO—

Ordinarily matures if planted by June 10. Good for ensilage. 100 days.

#### BRUNS' 90-DAY YELLOW

May be planted as late as June 20. If planted early will be ready to feed early in fall. Early but a good yielder.

### SEED CORN PRICES

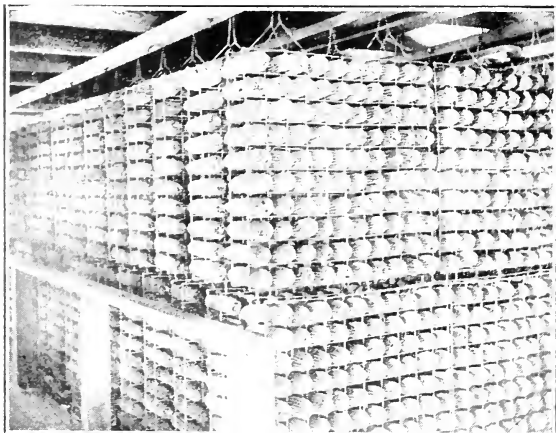
Subject to change

#### SHELLED AND GRADED—

	Bu.	5 bu. lot	10 bu. or over per bu.
Bruns' Yellow Dent	\$3.25	\$3.15	\$3.00
Iowa Silvermine	3.25	3.15	3.00
Improved Early Calico	3.25	3.15	3.00
Bruns' 90-Day Yellow	3.25	3.15	3.00

**EAE CORN**—We have a limited amount of BRUNS' YELLOW DENT in the ear, which was hand picked before frost, and dried in racks in frost proof storage. This corn represents a lot of work, and expense, and commands a premium, especially this year when much seed corn is of questionable germination. It is packed in crates of a bushel each. Price, per crate, \$5.00.

Above Prices Subject to Change



Method of Racking Seed Corn in Seed House on Our Farm

# ALFALFA

That alfalfa in Scott county is rapidly being recognized as our most valuable legume is evidenced by the fact that the acreage has been more than doubled the past year. What crop is there that pays better? First, it produces at least three crops per season of the best feed grown. Second, it is building up your land better and more cheaply than anything else you can get. Third, unlike red clover or most other legumes, it is good for many years. Sow it once and after that you need only to harvest. A field on our farm at Sigourney, Iowa, has now stood twelve years and has produced over 40 cuttings.

True, Alfalfa is sometimes rather difficult to get started, and may require considerable babying. But once you get a stand you will be doubly repaid for the extra effort.

To grow alfalfa successfully there are several things necessary. These vary in different instances. To lay down a fixed rule on how to grow alfalfa and try to adhere to it under all conditions would be a big mistake. Soils and seasons vary, and the method used should conform with the individual case.

Below we are briefly outlining the essentials for growing alfalfa successfully in this vicinity. The conclusions as set forth here are based on the experience of county agent, M. H. Hoffman, the practices of local growers, and our own experiences and observations.

## LIMING

should be done as much in advance of sowing as possible. Where practical, a year in advance is a good plan. The amount required varies from not any to four tons per acre. We advise getting samples of soil from different parts of the field and having them tested for lime. Your farm bureau is glad to do this and there is no charge for this service. During the past season over one thousand samples were brought in to the county agent by Scott county farmers for the purpose of determining the lime content of their fields.

## PREPARATION OF THE SEED BED

for alfalfa is important. The seed is quite small and it is therefore obvious that the soil should be as finely pulverized as possible. The nearer it is like a garden bed the better. It need not necessarily be worked deeply, for alfalfa has a long root and is not dependent upon a shallow layer of surface soil. Rolling after seeding is a good plan, especially on newly plowed ground. By so doing, the soil is firmly pressed against the seed, thereby hastening germination and making easier for the small roots to take hold and nourish the young plant.

## TWO METHODS OF SEEDING

in common use are broadcast or in drills. If there is sufficient moisture the former is usually preferred. A thorough harrowing after sowing the seed is sufficient. Discing is

unnecessary, in fact, may be detrimental by reason of the fact that it may cover the seed too deeply. Where moisture is present, less than an inch is sufficient for the seed. If, however, the ground is dry it should be planted somewhat deeper, and in this case drilling is the better method.

The practice of sowing half of the seed one way and the other half crosswise is a good plan for it insures a more even distribution of seed and helps to eliminate bare spots.

## INOCULATION

There are two principal methods of soil inoculation—commercial culture applied to the seed, and soil transfer. The former because of the simplicity and ease of application and low cost is in most common use. There are several forms of these on the market. We offer and recommend Nitragin. It is the original soil inoculator and in our opinion the best put up. Nitragin is endorsed by agricultural colleges, county agents, and thousands of users. Read the accompanying article concerning Nitragin and the purpose of inoculation.

## SPRING OR LATE SUMMER SEEDING

Each has its advantages and disadvantages. Which is best depends largely on soil conditions at time of seeding and weather conditions that follow. Spring seedings are usually accompanied with sufficient moisture to give the young plant a good start. However, in order to check weed growth it is necessary to sow a nurse crop with it. This is apt to rob the alfalfa plant of moisture later in the season. Also the sudden exposure to the sun when the nurse crop is removed is sometimes fatal to it. The nurse crop should be sown thinly, in the case of oats not over one to one and a half bushels per acre. Do not sow too early in the spring for alfalfa is quite tender when small and spring freezes may kill it.

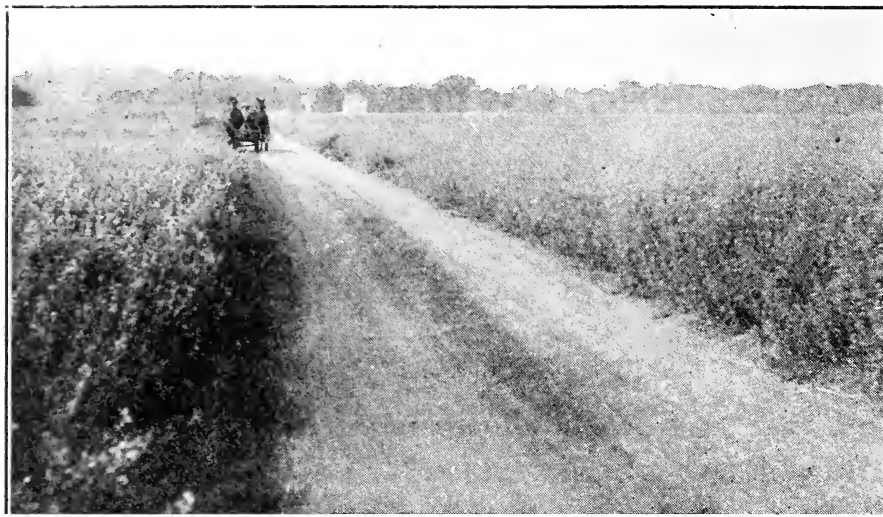
Fall seedings should be made during August so the alfalfa may make a fair growth before going into the winter. However, fall rains sometimes come late and plantings have to be deferred for lack of moisture. But in



A Field on Our Farm at Sigourney. Now 12 years old.

no case is it advisable to sow later than September 15. Fall seedings do not require a nurse crop.

Our Grimm is also high in purity and germination. Some of the most dangerous weeds, such as dodder, buckhorn, and Canada thistle are sometimes present in alfalfa. We carefully guard against these.



A Field of Alfalfa

Alfalfa is sometimes successfully started during June and July. There is no reason why this isn't all right if followed by a period of moisture. The chances, however, are against it, for the reason that the mid-summer months are as a rule too hot and dry.

#### KIND OF SEED

There is little difference in alfalfa varieties except in the degree of hardiness. In the case of Grimm and the common variety, no appreciable difference has been noted in yield, or size, or nature of the plant. Some authorities argue that both the root and plant of the Grimm are more spreading than is the case with the common alfalfa. Other authorities refute this argument and hold that even there the two are alike. In the matter of hardiness, however, all agree that Grimm is superior. Undoubtedly it is the hardiest alfalfa in common use today.

Grimm seed is much higher in price than common alfalfa and the question is often raised whether or not it pays to spend the difference to sow Grimm. This is a matter we leave for the customer to decide. The demand for Grimm far exceeds the demand for common and seems to be favored by local growers. The general opinion is that the greater hardiness is protection against winter kill ng, and that, such being the case, the difference in cost of the seed is of little significance. On the other hand there are a good many fields of common alfalfa that are withstanding the winters remarkably well.

**GENUINENESS OF OUR GRIMM**—Our Grimm is Dakota grown and comes from fields, some of which are over twenty-five years old, and have withstood the severest of winters. With every lot purchased we demand of the grower a sworn affidavit as a guarantee of its genuineness. This is obviously important by reason of the fact that alfalfa varieties cannot be distinguished by the seed. Before buying Grimm, therefore, you should make sure that it is covered by affidavit, or bears some other assurance of its genuineness.

**COMMON ALFALFA — DAKOTA GROWN**—Dakota grown common alfalfa is far superior to that grown in states farther south or in western irrigated states. By reason of the adverse climatic conditions it must endure, it has acquired a hardiness that places it ahead of common alfalfa from any other sources. Unless you are a grower of Grimm, our Dakota Common is undoubtedly the best to be had. It is considerably cheaper than Grimm, but is somewhat higher than southern or western grown common.

**COMMON ALFALFA — KANSAS-NEBRASKA**

**GROWN**—We carry only a small stock of this, and do not recommend it. It is somewhat cheaper in price, and is usually a nice bright grade, but that is about all that can be said for it. For planting here it is of questionable hardiness and the slight difference in cost does not warrant sowing it. However we have a few calls for it and know of some cases where it gave good results.

#### NITRAGIN



It isn't always necessary to inoculate, but it never does any harm and in most cases does a lot of good. Nitragin is simply a granular medium resembling a deep, rich soil and containing millions of tiny bacteria. When applied to the seed and then scattered on the soil, these bacteria at once go to work. They live in the nodules that form on the roots of alfalfa



and other legumes and have the power of taking nitrogen from the air and storing it in the form of plant food in the soil. Legumes, therefore, unlike other plants do not rob the soil of nitrogen but add to it instead. An abundance of nodules means not only that the soil is inoculated but that a large amount of valuable plant food is being taken into the soil, which is one reason why corn following a leguminous crop always shows a big increase in yield.

We carry Nitragin Cultures for the following Legumes: Alfalfa, Sweet Clover, Red Clover, Mammoth Clover, Alsike, White Clover, Soy Beans, Cow Peas, Garden Beans and Peas.

Nitragin is Sold on a Bushel Basis  
Price: 1/4 bu. size, for 15 lbs. seed, 40c; 1/2 bushel size, for 30 lbs. seed, 60c; 1 bushel size, for 60 lbs. seed, \$1.00.

Garden size for Peas, Sweet Peas and Beans, 20c.  
Directions for using on label of each package.



## Sweet Clover

As a soil builder Sweet Clover has no equal. It adds fertility to the soil in two ways: First, it is a legume and has the ability to take nitrogen from the air and store in the form of plant food in the soil; second, its enormous growth, when plowed under, makes a large tonnage of green manure, thereby adding to the soil large quantities of humus.

Sweet Clover fits in splendidly in the rotation of corn and small grain. Sown in small grain in the spring it can be plowed under in the fall or following spring and planted back to corn.

As a pasture, Sweet Clover heads the list of clovers and alfalfa. It is one of the few grasses that may be pastured successfully the first year. Sown in the spring it makes an abundant pasture in the fall and the following spring and summer. Cattle sometimes refuse to eat it at first but actually prefer it after acquiring a taste for it. For a hay crop Alfalfa is better because it makes more cuttings and lives much longer.

**GRUNDY COUNTY SWEET CLOVER**—This is a distinct variety of the white blossom biennial type, discovered a few years ago by a farmer in Grundy county, Illinois, hence the name. The writer made a tour over that county last summer for the express purpose of ascertaining whether or not the so-called variety differed materially from the recognized varieties, and in which way, if any, it was superior. The investigation proved beyond a doubt that it was exactly as had been claimed for it. Where grown alongside of other varieties the differences were easily noticeable.

Grundy County Sweet Clover differs from the ordinary White Blossom as follows: 1. Two to three weeks earlier. 2. Does not grow so tall and is finer stemmed. 3. Ripens the seed crop more uniformly.

Because of its finer texture it is better for hay or pasture purposes. At the same time the tonnage of green manure is equal to that of the common variety. Where grown for seed production it is also better because of the even maturity. Those who have grown sweet clover for seed, know of the difficulty in harvesting the crop, by reason of the fact that some seed is past ripe and shattering while some is still in the blossom stage. This is partly overcome in the Grundy County variety.

Our Grundy County is genuine and grown in the county where it was discovered.

**WHITE BLOSSOM BIENNIAL**—The ordinary variety. Grown more extensively than any other. Our seed is thoroughly cleaned and free of bad weeds. Also of high germination.

**HUBAM**—Hubam is an annual sweet clover and, unlike other varieties, makes its full growth and goes to seed in a single year. The enormous growth it makes in a few months is remarkable. It is most valuable when grown for fall pasture or for plowing under as green manure. Sown with small grain in the spring it will make a big growth after the grain is removed, in fact a much bigger growth than any other legume.

All our Sweet Clover has been scarified, thereby hastening germination.

### MEDIUM RED CLOVER

The clover seed crop of 1923 is considerably below normal and indications at the time this catalog was written point to higher prices later in the season. It is there-

fore impossible to set a price at this time. You may feel assured, however, that our price will be as low as any and that the quality will be of the best.

We judge clover by the following points: 1. Bright color. 2. Large percentage of purple seed. 3. Few or no brown (dead) seeds. 4. Plump. 5. Freedom of weeds or other foreign matter. 6. High germination. The clover we offer our customers is given a careful examination by this standard.

### IMPORTED CLOVER SEED

The shortage of the 1923 clover seed crop in this country has brought about the importation of large quantities of seed from foreign countries. Much of this imported seed is unfit for planting here, not only because it is unacclimated, but also because of the bad weeds it contains. The following is an excerpt from a report by the U. S. Department of Agriculture, concerning Italian Red Clover Seed:

"1. Italian red clover seed is unsuitable for any part of the clover area except the Pacific Northwest. Italian seed has resulted in a poor crop or a failure in nearly every trial made by the department..... How much Italian seed will be imported is not known and, unfortunately, it is not possible to tell how much Italian grown seed will be offered under some other name."

"6. Buyers should insist on knowing the origin of the seed offered and seed should be purchased from firms of known integrity."

We are glad to inform our customers that early last fall, as soon as the clover seed shortage was foreseen, we purchased a large stock of choice domestic seed, most of which was grown in Iowa within a radius of 75 miles from Davenport. We feel fortunate in being able to supply our customers with the same high grade seed as we have heretofore, and thereby protect them against clover of questionable origin. It is one of many ways in which a seed store can serve its patrons, and in this attitude we solicit your clover seed business. Our price will be fair.





Field of Sudan Grass

### MAMMOTH RED

Same as medium red except that it makes a ranker growth. Best on thin ground or when grown with the intention of plowing under. On rich soils, however, we do not recommend it, especially for a hay crop, as it grows too rank to make good hay, and is also liable to lodge.

### ALSIKE CLOVER

There will likely be a considerable increase in the alsike acreage this spring because of the lower seeding cost. The price per bushel will in all probability be considerably less than other clover while it also requires fewer pounds per acre, six pounds being sufficient. Alsike, because of its finer texture, makes a better quality hay than red clover, although the yield is a little less. Alsike and timothy sown together make an excellent combination.

### TIMOTHY

Our timothy seed is local grown and positively new crop. We offer no old seed, for the germination of timothy is sometimes questionable after it is one year old. We handle large quantities of timothy in the fall for the wholesale market. Such lots as we know come from clean fields are held back for our retail customers.

### SUDAN GRASS

Since its introduction into this country a few years ago, Sudan Grass has to a large extent displaced millets, kaffir corn, cane, and other forage crops. No other annual crop grown produces a greater quantity of fine quality hay than Sudan Grass.

Sudan belongs to the sorghum family and is rich in sugar content. In feeding value it is far ahead of millet. Cattle and horses relish it and eat even the coarsest stems. It will ordinarily produce three cuttings per season if sown at corn planting time. Two tons per cutting to the acre is not an exaggeration. It may be sown any time during the months of May, June or July, the later plantings, of course, making fewer cuttings.

Sudan also makes good pasture for live stock of any kind. For this purpose it is best to cut the first crop for hay and pasture the second growth. By that time the plant is well rooted and better stooled out.

We recommend sowing 30 pounds per acre broadcast. Sowing less than this will cause it to grow too coarse. The finer quality of hay obtained by sowing thickly will more than pay for the difference in cost of the seed. Sudan can also be sown in rows in which case 5 to 10 pounds per acre is enough. This of course necessitates cultivating, and has no particular advantage over broadcasting except to economize on seed.

### MILLET

Millet is a valuable catch crop for sowing where corn or other crops have drowned out or failed for any other reason. The variety most commonly grown here is GERMAN MILLET. It grows tall, has big heads, and is leafy. Makes big yields and is fine feed for the dairy. Sow 2 to 3 pecks per acre. Our seed is bright and clean.

### KAFFIR CORN

Good for fodder or grain crop. The grain makes excellent poultry feed. For fodder sow broadcast 50 pounds per acre. For grain crop, sow in rows 12 pounds per acre and cultivate.

### MISCELLANEOUS PASTURE GRASSES

Kentucky Blue Grass, Red Top, Meadow Fescue, Orchard Grass.

### DWARF ESSEX RAPE

The cost of seed per acre of Rape is trivial. Ordinarily sown broadcast at rate of 5 to 6 pounds per acre. Last year we had an unusually heavy demand for sowing in corn at time of last plowing. Also frequently sown in the spring in small grain. Ours is genuine Dwarf Essex.

### FODDER CANE

To make finest quality feed, cane should be sown thickly, not less than 75 lbs. per acre. As a dairy feed it is hard to beat. Many dairymen arrange for a field of cane every year. Very nutritious and greedily eaten by all stock.

### SEED OATS

Recleaned and Graded

**IOWA "103"** — An early white oat. In our opinion the best and most dependable variety for this locality, for the following reasons: 1. It is extra early and matures ahead of the hot summer weather. 2. It outyields any other variety. 3. The oat is white and preferred over colored oats in some markets. 4. Grain is plump and has a thin hull. 5. Straw does not grow coarse and does not lodge easily. 6. Is almost smut immune.

**IOWAR**—A medium late white oat. Both straw and berry grow considerably larger than the "103" variety. A very good yielder and preferred by those who want something a little later than the extra early varieties. Both Iowar and Iowa "103" were bred and propagated in the experimental plots of the Iowa State Agricultural College.



Sheaf of Iowa "103"

Make this your headquarters for Field Seeds.



## SOY BEANS

Believing that soy bean farmers of this vicinity might be interested in knowing the practical experiences of a Scott County soy bean grower, we have asked Mr. Christian Grell of Donahue to give us an article concerning his experiences during the past several years. Mr. Grell is a pioneer soy bean man, having experimented with, and grown them, on a large scale for the past fifteen years. During the past season the farm bureau soy bean test plot was conducted on his farm. We are pleased to quote Mr. Grell, herewith:

"Up to the present time the growing of soy beans has been more of an accident than an accepted policy in the general plans of agriculture. It is occasionally by accident of the existing conditions that we are brought to realize the value of a new and untried crop. I have grown soy beans in the corn for fifteen years. I have come to realize that the profits from such practice are far above what I regarded them to be in the earlier stage of such practice. It was in 1918 that I took stock of the results (which space will not permit me to relate in detail) when I took a check on the weight of 120 hogs and a recheck on the gains, when the soy beans in thirty-two acres of corn made an average gain of 110 lbs. of pork on each hog, which sold at \$18.75 per cwt. The following year I extracted the beans out of the hills in thirty-five acres of corn and sold them on the market for \$2000 for seed. I calculate that on a 160 acre farm the soy beans grown as a by-product should, under ordinary circumstances, net the grower \$2500 annually.

Therefore, it becomes a subject worthy of the most serious consideration. A word as to the growing of soy beans. In the first place I would say, be sure of your seed. It will not do to plant anything that looks like beans. The grower should know who grew the seed and know that the variety submitted were of a good thriving kind, that matured in good season. I have come to the conclusion that on rich or resourceful soil the earlier varieties should be planted, and on lighter soils the late varieties will give more satisfactory results. As to the names of soy beans, there are so many varieties so nearly alike, that I would supplement their commercial name by adding (the Manchu, as I know it, or whatever the variety may be) I shall never purchase soy bean seed outside of my own locality if I can avoid it. Personally I have decided to make my planting the following year of three varieties, viz., the Manchu, Ohio Browns or 909, and Mongol. These three varieties are very similar and merit a thorough try-out. They are very prolific and all bear an excellent quality of fruit and

carry the bean well without shattering. They grow a very strong bush and as a result maintain the beans well off the ground.

In my experience with beans I have had 18 different varieties as nearly as I can recount. They have amounted to everything from dismal failure to a howling success. This condition being due to variety alone. Growing beans for seed purposes, I would recommend planting quite thick in rows 36 inches apart. Work the seed bed thoroughly and cultivate with a weeder and harrow for the most part, as beans will tolerate quite a severe raking. Then it is possible that it will be necessary to cultivate but once with plow. I am not committed to the broadcast plan at all, not even for hay purposes."

Sincerely, CHRISTIAN GRELL

**MANCHU**—We place the Manchu at the head of the list, as being the highest seed yielding bean, while also early and entirely dependable for this locality. For planting in corn to hog down, or for a seed crop, plant Manchu. A good hay bean also. Our Manchus are local grown.

**BLACK EYEBROW**—Similar in many ways to Manchu except color of bean which is speckled. Will easily mature in this latitude. We recommend this one for the same purposes as the Manchu.

**ITO SAN** — An extra early bean, and good seed producer. Not suitable for hay or ensilage because of its dwarf growth. We recommend this one primarily for planting in early corn for hogging down early in the fall, or for late planting in early corn.

**MIDWEST**—Not a new variety, but a new name. Those varieties heretofore known as Hollybrook, Mongol, and Medium Yellow, and in which there was no noticeable difference, have been united under the one name, Midwest. The bean closely resembles Manchu, but is ten days to two weeks later and not so dependable for seed in this latitude. A good hay bean.

**BLACK SABLE** — A good bean to plant with corn for ensilage purposes. Grows tall and binds nicely in the bundle.



Manchu Soy Beans in a field of Bruns' Yellow Dent corn, on farm of Mr. P. L. Rogge, Route 2, Davenport. Mr. Rogge, on right; our Mr. Gardner, on left.



40-Acre Field of Manchus Near Davenport

## INSECTICIDES AND FUNGICIDES

Insects are roughly divided into two classes: 1. Chewing insects, or those that actually eat and digest the leaves, stems, and fruit of the plant, such as the potato beetle and cabbage worm. 2. Sucking insects, or those with sharp beaks with which they pierce the plant and extract the juice. Examples of these are the various aphids, thrips, and scale. Insects of the former class are controlled with stomach poisons, such as arsenate of lead, Paris Green, etc. Sucking insects are effectively combatted with contact insecticides, such as nicotine sulphate.

In addition to insect infestations, plants are subject to numerous fungus diseases. The principal ones of these are blight, mildew, rust, scab, rot, and smut. They are controlled with Bordeaux mixture or lime sulphur.

Prices on Insecticides fluctuate from year to year, and being unknown at the time this book is prepared, we have necessarily omitted them entirely.

### FOR CHEWING INSECTS

**ARSENATE OF LEAD**—Most efficient insecticide in the control of leaf-eating insects. Has almost entirely taken the place of Paris Green in the past few years. Does not burn the leaves; adheres to the foliage for a long time; deadly poisonous; economical to use. Caution: Arsenate of lead is a deadly poison, and unsafe to use on vegetables or fruits ready for the table.

**PARIS GREEN**—For leaf-eating insects. Is much used for potato bugs, although in late years greatly displaced by Arsenate of Lead.

**PYROX**—Combined insecticide and fungicide. Convenient preparation for spraying potatoes against blight



and bugs as both can be controlled at one operation.

**SLUG SHOT**—Fine, composite powder, applied either as a dust or in water by spraying. Especially recommended in killing currant and gooseberry worms, and cabbage and tomato worms.

**HELLEBORE**—Poisonous to insects but not to man. Therefore desirable for using on cabbage, tomatoes, and certain other vegetables and fruits in advanced stages.

**TREE TANGLEFOOT**—A sticky compound applied in a band around tree trunks. An effective protection against the crawling insects, such as canker worms, ants, Cussack moths, etc.



Tree Tanglefoot

### FOR FUNGUS DISEASES

**BORDEAUX MIXTURE**—For blight, mildew, and all other fungus diseases on vegetables and plants. Can be combined with arsenate of lead or other insecticides.

**LIME SULPHUR**—Originally intended as an insecticide for scale insects, but also gives good results in the control of fungus diseases on fruit. For this purpose we recommend it in preference to Bordeaux mixture.

### FOR SUCKING INSECTS

**BLACK LEAF 40**—Highly concentrated nicotine solution. Extensively used against all forms of soft bodied, sucking insects, such as aphids (plant lice), thrips, leaf hoppers, etc. A point to bear in mind is that this is a contact spray, and that its purpose is accomplished only by actually striking and burning the body of the insect. The importance of thorough spraying is therefore obvious.

#### LIME SULPHUR (Dry)

—A most effective remedy for scale on fruit trees, small fruits, and shrubbery. For this purpose the solution should be very strong, of water, and applied before the leaves come out. Also about 15 lbs. to 50 gallons a powerful fungicide. See Fungus Diseases.



### INSECTICIDES FOR HOUSE USE

**ANT EXTERMINATOR**—A non-poisonous powder for destroying ants in the house, lawn, or garden.

**FLYOSAN**—A liquid for spraying into the air. Kills all the flies in the room, as well as many other insects. Non-poisonous to other animals. Pleasing odor. Best applied with a hand atomizer that forms a fine mist vapor, such as our Midget hand sprayer described on page 41.

**ROACH DOOM**—Sure death to cockroaches. A powder which is scattered along the edge of the room, pantry, sink or other places where the roaches travel. Will positively rid the place within two weeks. We use it ourselves and do not hesitate to recommend it.

**ENOZ KILLS MOTH**—A liquid applied with a hand sprayer to garments, rugs, blankets, etc. Does not stain. Kills the egg as well as the moth.

Spraying Calendar on Page 49.

## FERTILIZERS

**PULVERIZED SHEEP MANURE.** Perhaps the most dependable and most economical all-purpose fertilizers on the market. For lawns apply broadcast at rate of 6 to 10 pounds per 100 square feet, raking well into the surface soil. For the garden use 1500 pounds per acre. Apply broadcast after plowing and harrow into the soil. Price, 2 lbs., 15c; 5 lbs., 30c; 10 lbs., 55c; 25 lbs., \$1.00; 100 lbs., \$3.00.

**SPECIAL LAWN AND GARDEN FERTILIZER.** Clean and odorless; rich in plant food. 10 lb. bags, 65c; 25 lb. bags, \$1.40; 50 lb. bags, \$2.35.

**RAW BONE MEAL.** Not to be compared with regular bone meal. Raw bone meal is a little higher but shows a stronger analysis. 5 lbs., 40c; 10 lbs., 75c; 25 lbs., \$1.50; 100 lbs., \$3.90.

**HOOVER'S PLANTLIFE.** For house plants. Clean to handle; no offensive odor. Makes plants grow like magic. Put up in attractive cans. Per can, 30c.

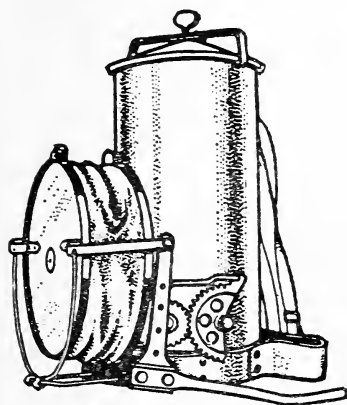
## INSECT CONTROL BY THE DUSTING METHOD

Some authorities are of the opinion that dusting will eventually take the place almost entirely of the wet spray. In certain localities this already seems to be the case. Our experience and observations lead us to believe that for many things dusting is more efficient and should be used more than it is. This is particularly true in the control of aphids and other sucking insects. Certainly, dusting is quicker and easier, eliminates weight and labor, and costs much less for the rig for applying it.

### IS DUSTING EFFECTIVE?

It is very effective and in many cases is even more effective than the wet spray. Better distribution and more thorough penetration is possible by dusting than by the wet method. The dust fumes if applied with the right kind of duster, reach and cover every portion of the plant surface, the under side as well as the upper, and into crevices where the wet spray cannot reach.

### The American Beauty Duster

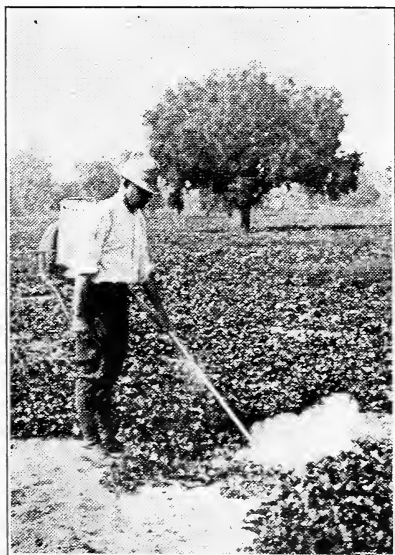


Most efficient duster on the market for the truck crops or orchard.

The American Beauty Duster is a one man machine. It is easily operated; has a large, powerful bellows; and is capable of ac-

complishing an enormous amount of work. Filled and brought into action in less than five minutes; the cover is clamped on; the straps thrown over the shoulders; and you are ready for action. No water to haul; no mixing or messing about preparing a solution.

Come in and let us tell you more about the American Beauty.



Dusting Melons with an American Beauty Dust Sprayer. (From Circular 154 U. S. Dept. of Agriculture.)

### The Feeny Duster

A small hand duster for the home garden. Is handy, easy to operate, efficient.

### Calispray Dusts

are made in several combinations and different strengths. There is a dust for every purpose—nicotine dusts for the control of aphids, thrips, cucumber beetle; arsenical dusts for potato beetle, tomato worm, cabbage worm, etc. Calispray Dusts are finely ground and are extremely fluffy. This means economy because it assures perfect distribution and superior clinging qualities.

We carry the following numbers.



**CALISPRAY DUST NO. 1**—A nicotine-sulphur dust, a combined aphicide and fungicide.

**CALISPRAY DUST NO. 12**—A powerful, quick acting 5 per cent nicotine dust for sucking insects.

**CALISPRAY DUST NO. 15**—An extra strong, 7½ per cent nicotine dust for early control work or heavy infestations of aphids, especially on melons.

**CALISPRAY DUST NO. 35**—An arsenical dust for use against all forms of leaf eating insects.

**CALISPRAY DUST NO. 65**—A fungicide for use against fungus diseases.

**CALISPRAY DUST NO. 81**—A 6 per cent nicotine and 20 per cent lead arsenate dust, combined insecticide and aphicide.

**CALISPRAY DUST NO. 82**—An all-in-one mixture for home garden use.

Ask for a copy of "WHAT, WHEN, AND HOW TO SPRAY," a complete treatise of numerous insect pests and their control by the dusting method.

On page 40 you will find a spraying calendar which shows when to spray and what to use to effectively control numerous insect pests and plant diseases found on fruit trees, small fruits, potatoes, and vegetables. Any additional advice that we can give you is yours for the asking.

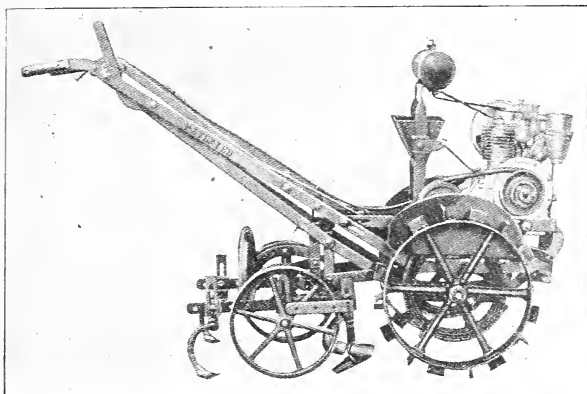
# SPRAYING CALENDAR

For the convenience of both the small and large user we have indicated the amount of material to use on the basis of a single gallon of water and 50 gallons.

CROP	WHEN TO SPRAY	AMOUNT TO USE WITH ONE GALLON OF WATER	AMOUNT TO USE WITH FIFTY GALLONS OF WATER	WHAT TO SPRAY FOR
APPLE	When buds show green at tips	6 1 Tablespoons Lime Sulphur Tablespoon Arsenate of Lead	12 to 15 lbs. Lime Sulphur and 1 1/2 lbs. Arsenate of Lead	Scale insects, bud moth, leaf roller
	When two-thirds of blossom petals have fallen	1 1/2 1 Tablespoons Lime Sulphur Tablespoon Arsenate of Lead	2 to 3 lbs. Lime Sulphur and 1 1/2 lbs. Arsenate of Lead	Apple scab, codling moth, other leaf-eating insects
	Two weeks after second spray	1 1/2 1 Tablespoons Lime Sulphur Tablespoon Arsenate of Lead	2 to 3 lbs. Lime Sulphur and 1 1/2 lbs. Arsenate of Lead	Apple scab, codling moth, other leaf-eating insects
PEACH	Before buds swell in spring	6 3/4 Tablespoons Lime Sulphur Tablespoon Arsenate of Lead	12 to 15 lbs. Lime Sulphur	Leaf curl, San Jose scale
	When "hushks" are dropping	1 1/2 3/4 Tablespoons Lime Sulphur Tablespoon Arsenate of Lead	1 lb. Arsenate of Lead	Cureulio
	Two weeks later	1 1/2 3/4 Tablespoons Lime Sulphur Tablespoon Arsenate of Lead	2 to 3 lbs. Lime Sulphur and 1 lb. Arsenate of Lead	Brown rot, scab, cureulio
CHERRY	Just before blossoms open	1 1/2 3/4 Tablespoons Lime Sulphur Tablespoon Arsenate of Lead	2 to 3 lbs. Lime Sulphur and 1 lb. Arsenate of Lead	Leaf spot, brown rot, cureulio
	Just after blossoms fall	1 1/2 3/4 Tablespoons Lime Sulphur Tablespoon Arsenate of Lead	2 to 3 lbs. Lime Sulphur and 1 lb. Arsenate of Lead	Brown rot, leaf spot, cureulio, slugs
	Ten days or two weeks later	1 1/2 3/4 Tablespoons Lime Sulphur Tablespoon Arsenate of Lead	2 to 3 lbs. Lime Sulphur and 1 lb. Arsenate of Lead	Brown rot, leaf spot, cureulio, slugs
	Before buds open	6 3/4 Tablespoons Lime Sulphur Tablespoon Arsenate of Lead	12 to 15 lbs. Lime Sulphur and 1 lb. Arsenate of Lead	Leaf spot, scale, brown rot, cureulio
	Immediately after blossoms drop	1 1/2 3/4 Tablespoons Lime Sulphur Tablespoon Arsenate of Lead	2 to 3 lbs. Lime Sulphur and 1 lb. Arsenate of Lead	Leaf spot, brown rot, cureulio
	About two weeks later	1 1/2 3/4 Tablespoons Lime Sulphur Tablespoon Arsenate of Lead	2 to 3 lbs. Lime Sulphur and 1 lb. Arsenate of Lead	Brown rot, cureulio
PLUM	Just before blooming	3 1 Tablespoons Bordeaux Mixture Tablespoon Arsenate of Lead	8 lbs. Bordeaux Mixture, and 1 1/2 lbs. Arsenate of Lead	Black rot, downy mildew, anthracnose, grape-berry moth, rose chafer
	Just as blossoms are falling	3 1 Tablespoons Bordeaux Mixture Tablespoon Arsenate of Lead	8 lbs. Bordeaux Mixture, and 1 1/2 lbs. Arsenate of Lead	Black rot, downy mildew, grape-berry moth, rose chafer
	Two weeks later	3 1 Tablespoons Bordeaux Mixture Tablespoon Arsenate of Lead	8 lbs. Bordeaux Mixture, and 1 1/2 lbs. Arsenate of Lead	Black rot, downy mildew, leaf-eating insects
GRAPES	Before buds show green	6 1 1/2 Tablespoons Lime Sulphur Tablespoons Lime Sulphur or	12 to 15 lbs. Lime Sulphur 2 to 3 lbs. Lime Sulphur, or	Scale insects
	Just as the leaves are expanding	3 1 1/2 Tablespoons Bordeaux Mixture Tablespoons Lime Sulphur or	8 lbs. Bordeaux Mixture 2 to 3 lbs. Lime Sulphur, or	Mildew, leaf spot, anthranose
	When fruit is one-fourth grown	3 3/4 Tablespoons Bordeaux Mixture and Tablespoon Arsenate of Lead	8 lbs. Bordeaux Mixture, and 1 lb. Arsenate of Lead	Fungus disease, currant worm
POTATO	At first appearance of Colorado Potato Beetle, and repeat as often as necessary, with 2 Tablespoons Arsenate of Lead to one gallon of water. For Blight spray with 3 Tablespoons Bordeaux Mixture to one gallon of water.			
TOMATO	For Tomato Worms and Cabbage Worms spray with 1 Tablespoon Arsenate of Lead to one gallon of water. When fruit is in advanced stages dust with Slug Shot. For Fungus Diseases on tomatoes spray with Bordeaux Mixture at the rate of 3 Tablespoons to one gallon of water.			
MELON	Dust thoroughly with Calispray Dust No. 15 at first appearance of Aphids, and repeat as often as necessary. For Beetle, dust with Calispray Dust No. 85, which also controls Aphids.			
CUCUMBER				

**NOTE:** Where dusting is preferred to the wet spray we can furnish dusts in various strengths and combinations for practically every purpose. See article on "Insect Control by the Dusting Method."





## BOLENS POWER HOE

### THE NEW WAY—GARDENING MOTORIZED

It seeds, it weeds, it cultivates, it mows the lawn.

Skillfully designed and perfected to do the most delicate and exacting work in vegetable growing.

Easy to operate—does the work efficiently—saves time—makes gardening easier and more profitable.

Come in and let us tell you more about the BOLENS.

Place your order early and be prepared when spring opens.

### DON'T FUSH GET A BOLENS

The Bolens is not an experiment in this county. It has



been thoroughly tried out by market gardeners of this vicinity and by the onion growers of Pleasant Valley. Its sudden popularity is founded on its own merits.

### PARTIAL LIST OF SATISFIED OWNERS OF THE BOLENS IN SCOTT COUNTY

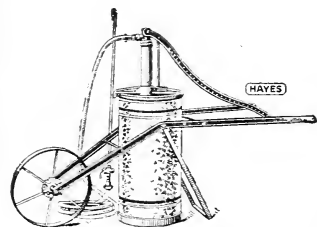
Fred Schutter, Pleasant Valley; William Hartz, Pleasant Valley; Henry Seaman & Sons, Davenport; Tom Gayman, Davenport; Fred Martins, Davenport; George Kraft, Davenport; H. G. Pauli & Sons, Davenport; Mrs. C. Claussen, Davenport; George Wilhelm, Davenport; Harry Asmussen, Davenport; J. W. Bettendorf Estate, Bettendorf; Wm. Ivanhoff, Davenport; W. E. Schoellermann, Pleasant Valley; H. R. Clemons, Pleasant Valley; Russel Rice, Pleasant Valley; Cecil Blackman, Pleasant Valley; Harvey Blackman, Pleasant Valley; Harry Dodds, Pleasant Valley; C. L. Van Meter, Monticello; W. Johanssen, Davenport, R. 7; Claus Roeh, Bettendorf; Tom Watkins, Davenport, R. 7; N. Havill, Davenport, R. 7; E. Kerr, Davenport, R. 7.



## HAYES SPRAYERS

### HAYES WHEEL-BARROW SPRAYER

This handy portable outfit is especially designed for small orchards, truck gardens, greenhouses, estates, public parks, and general purpose farm, home and garden work. Goes through narrow openings and between narrow row crops.



Equipped with 12½ gallon tank, 12½ foot hose, nozzle, and 8-ft. steel extension.

No. 1721F, \$24.00; No. 1421F, \$27.00.

### HAYES HAND BARREL SPRAY PUMP

Especially adapted for spraying the average home orchard.

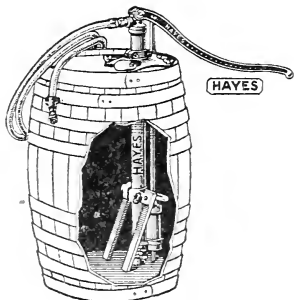
No. 172, pump only ..... \$10.00

No. 1721, pump with hose and nozzle \$13.00

No. 142, pump only ..... \$13.00

No. 1421, pump with hose and nozzle \$17.00

Above prices do not include barrel.



### HAYES HAND BUCKET SPRAYERS

A handy size for spraying small fruits, garden truck; disinfecting and whitewashing barns and poultry houses; spraying live-stock. No. 251, complete with hose .... \$3.50  
No. 211, complete with hose .... \$4.00

### BOSS KNAPSACK COMPRESSED

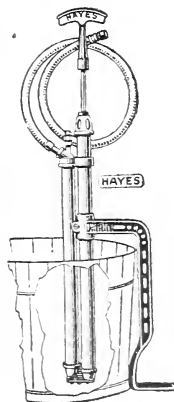
AIR SPRAYER—After pumping the operator has only to direct the spray. Has numerous uses. Tank holds 4 gallons. Complete, galvanized tank ..... \$5.40

### HAYES ATOMIZERS

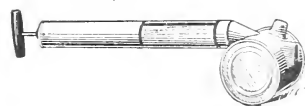
No. 31 Perfect. Hand sprayer made of heavy tin. Capacity one quart. 55c each.

No. 32 Matchless. Same as No. 31 except can is galvanized. Each, 65c.

No. 34 Continuous. Spray produced on both the in and out stroke of the plunger, constant instead of intermittent. Each, 95c.



Boss



Hayes No. 31 Perfect

No. 30 Midget. Especially adapted for house plants and general home use. Capacity one pint. Each, 40c.

### DON'T FAIL TO SPRAY

Protect your fruit and vegetable crops against the ravages of insects and fungus diseases. To spray wisely is crop assurance. To fail to spray is partial, if not total, crop failure.

We are glad to assist you with your spraying problems in any way we can.

# Lewis Quality "Beeware" and Dadant's Famous Foundation

Beekeepers of Scott and Rock Island counties will be interested in knowing that we are handling a complete line of bee supplies, and that they can get anything they need in this line without having to send away. We shall endeavor to keep our stock complete at all times. We want to be at your service and believe you will appreciate the advantage of buying at home. You will find our prices just as low as if you ordered yourself, and at the same time you will save the transportation charges and avoid the inconvenience of sending away.

## HIVES AND SUPERS

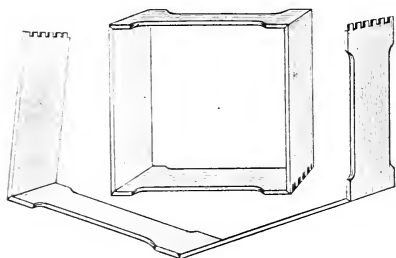
Lewis "Beeware" dovetailed hives and supers are constructed of well seasoned lumber, free from knots. The milling is most accurate and the finish splendid, making for efficient work and long life. All hives are furnished with metal covers, instead of Excelsior covers, unless the latter are specified. We also have the Modified Dadant hives.

### HIVES

5	8-frame, 1 story hives, met. cov. KD .....	\$16.40
5	10-frame, 1 story hives, met. cov. KD .....	17.60
1	8-frame, 1 story hive, met. cov. KD .....	3.70
1	10-frame, 1 story hive, met. cov. KD .....	4.10

### HIVE BODIES WITH FRAMES

5	8-frame, KD .....	\$ 7.30
5	10-frame, KD .....	8.05



### SUPERS FOR COMB HONEY

5	8-frame, No. 1, KD .....	\$ 4.65
5	10-frame, No. 1, KD .....	5.25
1	8-frame, No. 1, KD .....	1.25
1	10-frame, No. 1, KD .....	1.35

### SHALLOW EXTRACTING SUPERS

5	8-frame, KD .....	\$ 4.80
5	10-frame, KD .....	5.45
1	8-frame, KD .....	1.20
1	10-frame, KD .....	1.30

### SECTIONS, SEPARATORS, SECTION HOLDERS, SPRINGS

Famous Lewis sections, highly polished, will not break in folding. Made of selected basswood.

#### LEWIS RENOWN GRADE

4 1/4 x 4 1/4 x 1 1/2, 2 beeway, 100, \$1.50; 250, \$3.65; 500 for \$6.95.

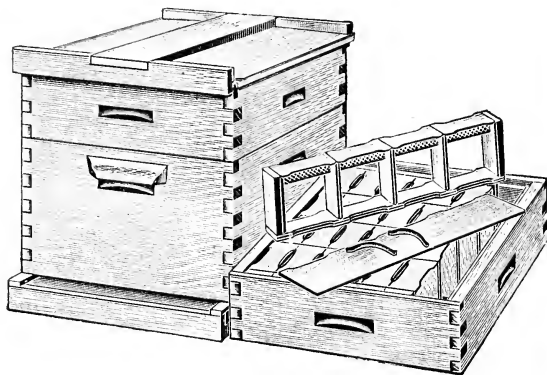
4 1/4 x 4 1/4 x 1 1/2, plain, 100, \$1.40; 250, \$3.40; 500, \$6.50.

4 x 5 x 1 1/2, plain, 100, \$1.40; 250, \$3.40; 500, \$6.50.

Section separators, each, 2c; 100, \$1.70.

Scalloped section holders, each, 6c; 100, \$5.25.

Super springs, extra springs, each, 1c; 100, 75c.



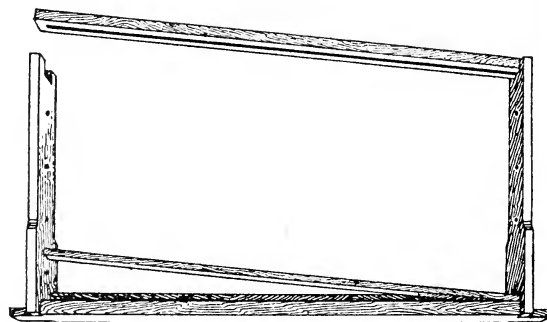
## FRAMES

All frames for hive bodies are furnished with the Lewis slotted bottom bars unless the old-style solid bottom-bars are specified. This is an improvement in frame construction to keep up with the times. The slot is made in the bottom bar to insert Dadant's Wired Foundation through the slot, so that combs may be fastened all along the bottom bar. The slotted bar is just as suitable for old-style (plain) foundation. It is strongly made and has solid ends so it may be nailed securely to the end bars of the frame.

### HOFFMAN, SELF-SPACING FRAMES

Brood size, each 8c; 100, \$7.00; 500, \$33.50.

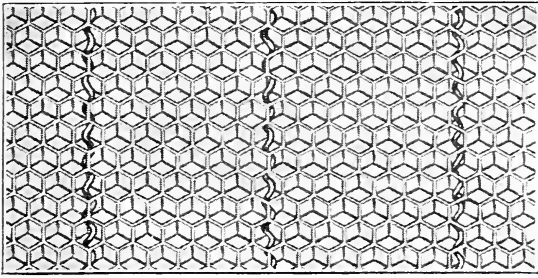
Shallow extracting, 5 3/8 inch, each 6c; 100, \$5.25; 500, \$25.00.



Lewis Slotted Bottom Bar Frame

## PURCHASE EARLY

It is difficult to know in advance of the season precisely what the demand will be. We, therefore, urge you to give us your order as early as practicable. We shall try to keep our stocks complete at all times, but in case of extra heavy demand it is probably that our stock of some items may be depleted for short intervals. By purchasing your supplies ahead of your needs you will avoid delay, and make sure that no part of the honey crop is lost.



Section from a sheet of wired foundation. The full sheet has seven wires.

#### PRICES PER POUND

##### Surplus Sizes

	1 lb.	2 lb.	5 lb.	25 lb.
Thin surplus .....	83c	80c	78c	76c
Extra thin surplus .....	85c	82c	76c	74c

#### SIZES AND SHEETS PER POUND

	Sheets per pound
Medium brood, standard wirel .....	6
Modified Dadant, wired .....	4 to 5
Medium brood, plain .....	7

Surplus, sheets per pound, thin, 28; extra thin, 32.



Excelsior Veil

#### VEILS

Excelsior bee veil, made of coarse wire screen and shaped not to be pushed off by shoulders. Each, \$1.25.

All tulle veil, fits pocket, durable, goes over brim of any hat; made of imported material. Each, cotton, 90c; silk face, \$1.00; all silk, \$1.25.



Tulle Veil

#### EXCLUDERS

Queen excluders, made with 6-way zinc strips, brushed by wire to make metal smooth and easy for the bees to go through.

8-frame, each, 65c; 10 for \$6.30.

10-frame, each, 75c; 10 for \$7.30

#### HIVE TOOLS

All steel hive tools, 7 inch, each 50c.

#### BEE BRUSH

Bristle bee brush, grey bristles, soft and pliable, wide as a Hoffman frame, each 28c.



Bee Brush

#### BEE ESCAPES

Lewis 4-way bee escapes. A new and improved escape with four passages from the supers. Each 18c.

#### "AMERICAN BEE JOURNAL"

A leader in marketing helps, crop movements, and successful apary management. The Dadants, who publish the American Bee Journal, are large beekeepers and have the keen, practical criticism which makes the Journal a magazine of business-building facts.

A special series of marketing articles in 1924. Regular subscription price, \$1.50.



## DADANT'S FAMOUS FOUNDATIONS

#### WIRED—PLAIN—SURPLUS

We have all of the famous Dadant foundations, wired, plain and surplus. Some beekeepers still use the plain, (unwired), foundation in the brood nest, but it will pay them to try the Wired Non-Sag Foundation, both for brood and extracting frames. In the Langstroth frames (Hoffman) with the slotted bottom-bars, it needs no wiring by hand, making it a great time saver, and the combs built from it are solidly fastened to the four sides of the frames. Almost all the cells are worker size, with no drone cells or sagged cells.

Surplus foundation (for sections, not wired), is the usual fine grade associated with Dadant quality.

#### PRICES PER POUND

##### Brood Sizes

	1 lb.	2 lb.	5 lb.	25 lb.	50 lb.
Medium brood, wired .....	78c	75c	73c	71c	70c
Medium brood, plain .....	75c	72c	70c	68c	67c

##### Slotted bottom-bar

8 9-16x16 $\frac{3}{4}$
10 11-16x16 $\frac{3}{4}$

##### Solid bottom-bar

8 1 $\frac{1}{8}$ x16 $\frac{3}{4}$
10 1 $\frac{1}{4}$ x16 $\frac{3}{4}$
7 $\frac{7}{8}$ x16 $\frac{3}{4}$

#### BEE SMOKERS

Woodman's Bingham bee smokers. Best on the market.

Doctor, 3 $\frac{1}{2}$ x7 inches, each .....	\$1.25
Smoke Engine, 4 inches, each .....	\$1.50
Big Smoke, plain, 4x10 inches, each .....	\$1.75
Big Smoke, with shield, each .....	\$2.25

#### BEE GLOVES

Canvas Bee Gloves. Furnished either with or without fingers. Long sleeves of heavy drilling. Practically sting proof and strongly stitched at seams. Large, medium or small, per pair, 95c.

#### BEE BOOKS

"The Honeybee." By Langstroth-Dadant. Seventy years of experience in one book. From the pens of three of the world's master beekeepers — Langstroth, Charles Dadant, and C. P. Dadant. A cross-indexed reference book which is making a place for itself among the great books on apiculture. Price, \$2.50 per copy; 250 pages, 200 engravings, cloth binding.

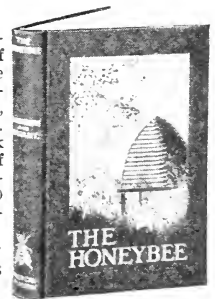
"First Lessons in Beekeeping." By C. P. Dadant. 167 pages, 178 illustrations. Price, \$1.00.

"The Dadant System of Beekeeping." By C. P. Dadant. The large hive explained. Price, \$1.00.

"Practical Queen Rearing." By F. C. Pellet. Queen rearing principles made clear. 105 pages, 40 illustrations. Price, \$1.00.

"A Thousand Answers to Beekeeping Questions." By Dr. C. C. Miller. One thousand of the best sifted from over 10,000. Price, \$1.00.

"Outapiaries." By M. F. Dadant. Equipment, management, locations. 110 pages, 60 illustrations. Price, \$1.00.





## HIGH GRADE SINGING CANARIES

We make a specialty of singing canaries, both domestic and imported, and place choice songsters into hundreds of homes every year. The constantly increasing demand for our singers we contribute to their superior song quality and to the fact that they are guaranteed.

A beautiful singing canary makes an ideal gift. It is always appropriate—for Christmas, birthdays, or any other occasions. One of these delightful little entertainers is equally enjoyed in the home of the rich or the poor.



### EVERY BIRD GUARANTEED TO SING

With every singer we furnish a written guarantee which permits of the return of the bird if it fails to sing, in exchange for another any time within six weeks after the date of purchase. We however require that the bird is returned within the six week's period. The importance of a guarantee is obvious, for many canaries never sing a note and are practically worthless. We protect you.

### ST. ANDREASBURG ROLLER CANARIES

These are imported from Germany where canary raising and training is a science. They have a trained song which may be described as a low, soft roll, gradually rising and increasing, with beautiful variations thrown in.

### HARTZ MOUNTAIN CANARIES

These in appearance are the same as the Rollers—some pure yellow, some spotted, and some quite dark. The song however is different, resembling somewhat the wild bird song. It is high pitched and usually quite loud. Preferred by many.

### FEMALE CANARIES

During the mating season, February to July, we keep a stock of both Roller and Hartz Mountain females selected for mating purposes. We try at all times to procure our females from good dependable breeding stock.

### PRICES OF CANARIES IMPORTED AND DOMESTIC

Canary prices rise or lower throughout the year, and it is therefore impossible to give specific prices. Those shown here, however, cover the usual price range. Those who contemplate ordering by mail, will gladly be given current prices on request.

St. Andreasburg Roller Males (Singers)	\$8.00 to \$12.00
St. Andreasburg Roller Females	\$2.00 to \$ 3.00
Hartz Fountain Males (Singers)	\$8.00 to \$12.00
Hartz Mountain Females	\$1.75 to \$ 2.50

## PARROTS

In buying a parrot insist on getting a young hand-raised bird. These not only make the best talkers but are tame and make good pets. Trapped parrots, that is, those caught in the wild state after they are matured, are always wild and dangerous to handle, and never learn to talk.

These young birds we have on hand during the months of June, July, August and September. They are about six months old, usually just commencing to talk, and will learn rapidly with a little training. If you are going to buy a parrot we advise buying during these months and get a young hand-raised bird. They are usually off the market the rest of the year.

Young Hand Raised Mexican Double Yellow Heads. One of the finest of all talkers. We guarantee them to learn to talk. \$14 to \$16 each.

Young Hand Raised Mexican Red Heads. A fair talker. An affectionate pet. \$9.00 to \$11.00 each.



### OLDER PARROTS ALREADY TALKING

Occasionally we have on hand parrots that are already talking. These are usually scarce and hard to get. The price varies, being dependent on the talking ability. Prices and further details given on request.

### MISCELLANEOUS BIRDS

**GREEN SHELL PARAKEETS** (Lovebirds)—Very ornamental. Per pair, \$7.00 to \$8.00.

**STRAWBERRY FINCHES**—Very tiny and beautiful. Good singers. Per pair, \$5.00 to \$6.00.

**ZEBRA FINCHES**—Per pair, \$6.00 to \$7.00.

## DOGS



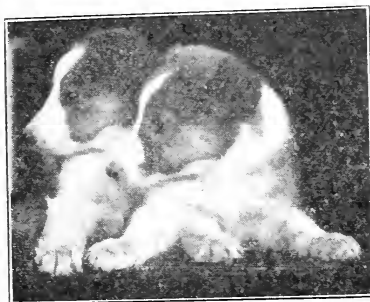
Fox Terrier

We have now been handling dogs for nearly three years, and during that time there has been an ever increasing sale, until we are now selling several hundred per year. We contribute this growth to the fact that from

the start we made it our policy to handle nothing but thoroughbred stuff. We have made it possible to buy a good dog at a moderate price.

We handle only puppies, ranging in age from seven weeks to three months.

**FOX TERRIER**—Very intelligent and active. A good play fellow; excellent companion for children. Markings are white with black spots, or white with tan spots. Ours are usually the small type. Price, \$7.50 to \$12.00.



Collies

**COLLIE**—One of the best and most popular of the large breeds. Long, shaggy hair. An exceptionally good farm dog. Markings usually brown with white collar and flash up forehead. Intelligent. Price, \$7.50 to \$15.00. White pedigreed collies, \$15.00 and up.

**SHEPHERD** — The best cattle dog to be had. A Shepherd or Collie should be on every farm. Price, \$7.50 to \$15.00.



Boston

**POODLE**—Very popular house dog. Small in size, sometimes weighing only six or seven pounds when matured. Curly hair, all white. Very friendly and affectionate. Price, \$7.50 to \$12.50.

**SPITZ (White Eskimo)**—Of medium size. Long, wavy, white hair; black eyes; fluffy tail; pointed muzzle. Cross disposition toward strangers. A good watch dog. Price, \$10.00 to \$20.00.

**AIREDALE**—An all-purpose dog. Large in size, often weighing over fifty pounds. Black and tan markings; very popular in last few years. Usually furnished with pedigree. Price, \$10.00 to \$20.00.

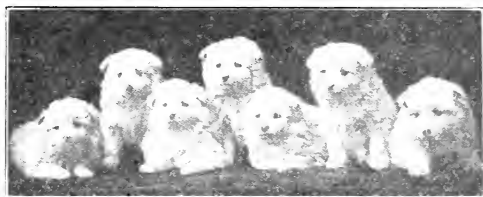
**BOSTON BULL**—Smallest and most popular of the various bull dogs, weighing about 12 to 20 pounds. Short muzzle. Usually with screw tail. Color brindle, and when well marked has white collar and flash up forehead. Price, pedigreed Bostons, \$25.00 and up. Price, non-pedigreed Bostons, \$15.00 and up.

We handle a few of breeds other than those listed here. Let us know your wants and we can probably supply you.

Remember, we handle no cross-breeds. Our dogs are thoroughbred, and many are eligible to register.

## FERRETS

Nothing better for hunting rabbits and other game. Also good for ridding the place of rats and mice. Prices usually run from \$5.00 to \$6.00 for young tame ferrets.



Spitz Puppies



Poodle

## KITTENS

Angoras ..... \$10.00 and up  
Persians ..... \$10.00 and up

## MONKEYS

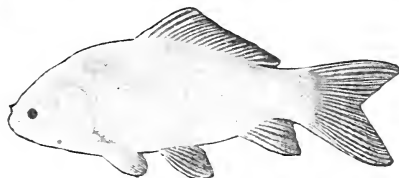
**RINGTAIL**—Small; intelligent; good looking. Can be taught to do many cunning tricks. Best of all for a house pet.



Persian Kitten

## GOLDFISH

**COMMON GOLDFISH**  
—2 inches to 5 inches in length. 10c to 50c each, according to size.



Common Goldfish

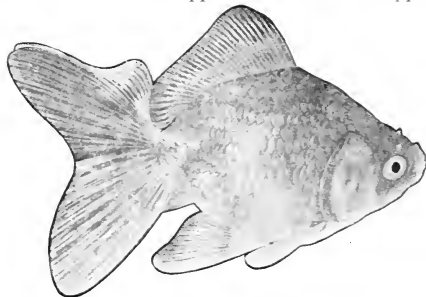
Common Goldfish, but with longer and more graceful bodies and tails. 25c to 50c each, according to size.

**JAPANESE FANTAIL GOLDFISH**—Short, stubby bodies and wide-spreading, perfect shaped fantails. 50c to \$1.00 each.

**CHINESE TELESCOPE GOLDFISH**—Similar to Japanese Fantails except that they have large, protruding eyes. 50c to \$1.00 each.

**TADPOLES**—10c each.

With orders to be shipped, add 25c for shipping pail.

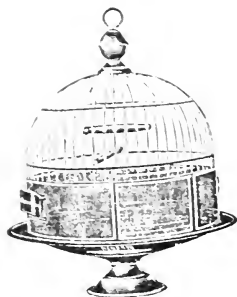


Japanese Fantails



# Cages, Stands and Appliances

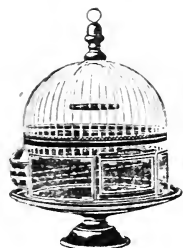
Owing to limited space we can list only a few cages here. We, however, carry a large stock and wide assortment, including the least expensive numbers, as well as the more fancy and high priced. Let us know what you want if you don't see it listed here.



## PLAIN ENAMELED CAGE

Without Seed Guard

No. 02	—8½x8 in.	\$1.80
No. 165	—9½x6½ in.	\$1.95
No. 166	—10½x7 in.	\$2.55
No. 167	—11x7½ in.	\$2.75
No. 168	—12¼x8¼ in.	\$3.10
No. 169	—18x8¾ in.	\$3.35



## ROUND ENAMELED CAGE

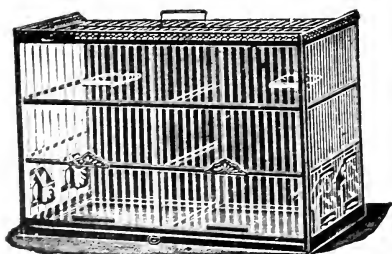
Ivory Finish. With Seed Guard.

No. 6	—10 inches diameter	\$3.95
No. 6½	—11 inches diameter	\$4.50
No. 7	—12 inches diameter	\$4.95

## BREEDING CAGES

Equipped with solid and wire partitions, drawer base, and closed back

No. 86S	—17½x8¾x13¼ inches	\$5.00
No. 86	—20x10x14 inches	\$5.90
No. 87	—22x11x15¾ inches	\$6.80
No. 88	—24½x12¼x16¼ inches	\$7.70



Breeding Cage

## SQUARE PARROT CAGES

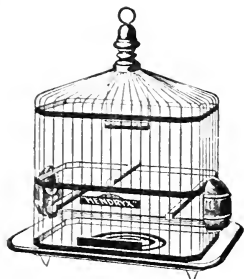
Equipped with Grating and Drawer Base

No. 101P	—15½x14x27 inches	\$12.50
No. 102P	—17½x15½x28 inches	\$14.90
No. 103P	—21¼x17½x31 inches	\$16.85

## ROUND BRASS CAGE

With Seed Guard

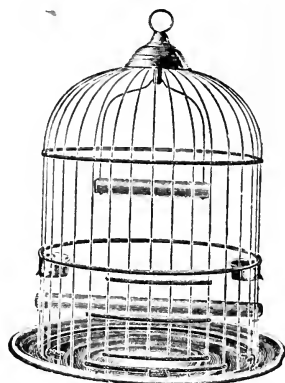
No. 274	—10 in. diam.	\$4.95
No. 275	—11 in. diam.	\$5.85
No. 276	—11 9-16 in.	\$6.70



## ROUND PARROT CAGES

Tinned Wire and Zinc Base

No. 70P	—12 inches diameter	\$ 4.00
No. 75P	—13 inches diameter	5.15
No. 80P	—14 inches diameter	6.00
No. 85P	—15½ inches diameter	7.60
No. 90P	—17½ inches diameter	10.90



## CAGE STANDS

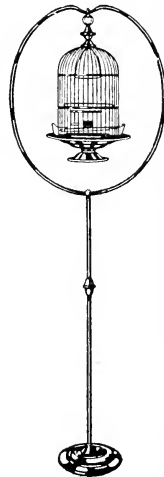
No. 19A	—Polished Brass Tubing, complete, oval arch	\$7.00
No. 18A	—Polished Brass Tubing, semi-oval arch	\$6.00
No. 171	—Ivory base and upright, brass semi oval arch	\$4.50



STYLE 171  
(Stand only)



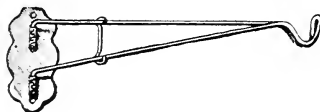
STYLE 18A  
(Stand only)



STYLE 19A  
(Stand only)

## CAGE HOOKS

STYLE T	—Brass plated, 10 in. long	20c
STYLE S	—Nickle plated, 10 in. long	15c
STYLE LW	—White enamel, 12 in. long	25c



STYLE P—Brass plated, 12 in. long 25c

One of our guaranteed-to-sing Canaries in your home will make a most delightful entertainer.

## MISCELLANEOUS APPLIANCES FOR CAGES



**CAGE SPRING**, double, solid brass, each 40c  
**CAGE SPRING**, single, brass plated, 15c, 20c  
**24 IN. CHAIN and SPRING**, each ..... 30c  
**CUTTLEBONE HOLDER**, brass, each .....10c  
**FEED CUP**, flint glass, covered top, each 15c  
**FEED CUP**, opal glass, covered top, each 20c  
**FEED CUP**, flint glass, open top, each .....15c  
**FEED CUP**, opal glass, open top, each .....20c  
**BATH DISH**, opal glass, each ..... 20c  
**BATH DISH**, flint glass, each ..... 15c  
**WIRE NESTS**, for breeding cages, each 15c  
**POWDER GUN**, for applying mite  
 powder to birds, each ..... 20c  
**BIRD NESTING**, prepared hair, package 10c  
 Postage extra for mail orders.

GOLDFISH GLOBES AND  
AQUARIUMS  
ROUND GLOBES

1/2 gallon .....	\$0.30
1 gallon .....	.60
2 gallon .....	1.00
3 gallon .....	1.75

## SQUAT GLOBES

1 gallon .....	\$0.60
2 gallon .....	1.00
3 gallon .....	1.75

## METAL FRAME AQUARIUMS

—Sizes varying from 1 1/2 gallons  
 to 10 gallons. Prices and further  
 details on request.



## FOODS, REMEDIES, SUPPLIES, ETC.

## BIRD SEEDS

**BRUNS BULK CANARY SEED**—Our own mixture, of high grade fresh seeds in the  
 right proportions. Contains no hemp or other seeds injurious to the bird's health. High-  
 est in quality, yet the most economical. Price, per lb., 15c; 10 lbs. or over, 12 1/2 c per lb.

**PACKAGE SEED** (Max Geisler's), per package.....25c  
**PLAIN CANARY SEED**, per lb. ....15c  
**RAPE SEED**, per lb. ....20c  
**HEMP SEED**, per lb. ....15c  
**MILLET SEED**, per lb. ....15c  
**HULLED OR STEEL CUT OATS**, per lb. ....15c  
**UNHULLED RICE**, per lb. ....15c  
**POPPY (Maw) SEED**, per lb. ....40c  
**PARAKEET SEED MIXTURE**, per lb. ....15c  
**FINCH SEED MIXTURE**, per lb. ....15c  
**SUNFLOWER**, per lb., 15c; 2 lbs. ....25c  
 Postage extra for mail orders.

**CASTLES**, in different sizes, each ..... 20c to \$1.80  
**AQUATIC PLANTS** (Fish Moss), bunch .....15c  
 Postage extra for mail orders.

## BOOKS

**"CANARY BREEDING AND TRAINING"** ..... 35c  
**"PARROTS AND OTHER TALKING BIRDS"** ..... 35c  
**"FEATHERED PETS"** ..... 35c  
**"AQUARIA"** ..... 25c  
 Postage extra for mail orders.

## DOG FOODS

**CHAMPION PUPPY BISCUIT**, 1 1/2 lb. package .....35c  
**CHAMPION PUPPY MEAL**, 2 lb. pkg. ....40c  
**CHAMPION DOG BISCUIT**, 2 1/4 lb. package ..... 40c  
**CHAMPION DOG BISCUIT**, 5 lb. package ..... 75c  
**MILLER'S A-1 RATION**, 5 lb. package .....60c  
**MILLER'S A-1 RATION**, 25 lb. package .....\$1.75  
**MILLER'S A-1 RATION**, 50 lb. package .....\$3.00  
**SPRATT'S OVALS**, 1 lb. 9 oz. package ..... 40c  
 Postage extra for mail orders.

## DOG REMEDIES

**SERGEANT'S DISTEMPER MEDICINE** .....\$1.20  
**SERGEANT'S MANGE MEDICINE** ..... .65  
**SERGEANT'S CONDITION PILLS** ..... .60  
**SERGEANT'S SURE SHOT CAPSULES**, for  
 worms ..... .60  
**SERGEANT'S SURE SHOT LIQUID**, for worms ..... .60  
**SERGEANT'S TAPE WORM MEDICINE** ..... .60  
**SERGEANT'S ARSENIC AND IRON PILLS** ..... .60  
**SERGEANT'S CANKER WASH** ..... .60  
**SERGEANT'S PEPSIN TABLETS** ..... .60  
**SERGEANT'S COUGH MEDICINE** ..... .60  
**SERGEANT'S RHEUMATIC PILLS** ..... .60  
**SERGEANT'S EYE WASH** ..... .60  
**SERGEANT'S CONSTIPATION CAPSULES** ..... .30  
**SERGEANT'S CARBOLIC TAR SOAP** ..... .25  
**SERGEANT'S SKIP-FLEA SOAP** ..... .25  
**SERGEANT'S SKIP-FLEA POWDER** ..... .25

## SUNDRY BIRD SUPPLIES

**MANNA**, each .....15c  
**KAEMPFER'S CANARY HIGHBALL**, each .....15c  
**BIRDOLENE**, package .....20c  
**BIRD BITTERS**, per bottle .....25c  
**CANARY TONIC**, per bottle .....25c  
**PARROT TONIC**, per bottle .....25c  
**JOHNSON'S SONG RESTORER**, package .....15c  
**BURNETT'S SONG RESTORER**, package .....25c  
**MOULTING FOOD**, package .....20c  
**BIRD BISCUIT**, package .....20c  
**MITE POWDER**, package .....25c  
**NESTLING FOOD**, for young birds, package .....25c  
**ASTHMA TABLETS**, package .....25c  
**BIRD BALM**, for bald spots on birds, box .....20c  
**BIRD SALVE**, for sore feet, box .....20c  
**SILVER GRAVEL**, box .....15c  
**RED GRAVEL**, box .....15c  
**CUTTLEBONE**, large, each .....10c  
**CUTTLEBONE**, small each, .....5c  
 Postage extra for mail orders.

## GOLDFISH SUPPLIES

**WAFER FISH FOOD**, large package .....15c  
**WAFER FISH FOOD**, small package .....10c  
**NATURAL FISH FOOD**, package .....10c  
**CRUSHED AQUARIUM SHELLS**, package .....20c  
**WHITE AQUARIUM SAND**, package .....15c  
**FLOATING ORNAMENTS**, ducks, geese, and  
 swans, each ..... 10c to 15c

**ORDERS BY MAIL**—We ship birds, pets, supplies, etc., into every state, and guarantee safe arrival. We  
 promise good selection, and if anything is unsatisfactory it may be exchanged if returned promptly. Canaries  
 however are guaranteed for song for six weeks.

**EXPRESS SHIPMENTS**—Birds and all other live stock are shipped by express collect. Also dog foods  
 and bird seeds in quantities, parrot cages, cage stands, and aquariums.

**PARCEL POST SHIPMENTS**—Bird foods, remedies, supplies, cage appliances, etc., can be sent by par-  
 cel post if the sufficient amount for postage accompanies the order. Allow at the rate of 7 cents for each  
 50c worth of merchandise or less, which is usually about right.

**DON'T FORGET TO INCLUDE POSTAGE.**

# SOMETHING FOR EVERYONE

Things in the Catalogue to which we give special emphasis—not new novelties, but tried and true, practical and profitable items. Many of these are exclusively our own offerings and cannot be purchased elsewhere.

## FOR THE FARMER—

Brun's Yellow Dent Seed Corn. See pages 31-32.  
Soy Beans for all purposes. See page 37.  
Medium Red Clover, grown in this country, NOT imported. See page 35.

## FOR THE MARKET GARDENER—

Bolens Power Hoe. See page 41.  
American Beauty Dust Sprayer. See page 39.  
"Double Tested" Seeds that stand for risk elimination and crop assurance.  
Certified Early Ohio and Irish Cobbler Seed Potatoes, 100 per cent perfect. See page 14.

## FOR THE HOME GARDENER—

Seeds that are tried and true—the right varieties for your locality.

## FOR THE HOME BEAUTIFYER—

"Velveteen" Lawn Grass Mixture. See pages 2-3.

## FOR THE FLOWER GARDENER—

"Davenport" Gladiolus Mixture. See page 22.  
"McClelland Heights" Canna Collection. Page 23.  
"Vander Veer Park" Mixture of Spencer Sweet Peas. See page 21.

## FOR THE FAIR EXHIBITOR—

Liberal Cash Prizes on Vegetables and Potatoes at the Mississippi Valley Fair. See page 9.

## FOR THE BEE KEEPER—

Famous Lewis Beeware and Dadant Foundation. See page 42-43.

## FOR THE PET FANCIER—

Our Guaranteed-to-Sing Canaries and other pets. Pages 44 to 47.

## INDEX

Page		Page		Page	
Introductory	1	Candytuft	16	Bulbs	22-24
Lawn Grasses	2-3	Cardinal Climber	16	Caladium	23
Garden Seeds	4-13	Carnation	16	Cannas	23
Asparagus	4	Castor Bean	20	Cinnamon Vine	23
Beans	4-5	Celosia	16	Dahlias	24
Beet	5	Centaurea Cyanus	16	Elephant's Ear	23
Broccoli	10	Chrysanthemum	16	Fall Bulbs	24
Cabbage	6	Coix Lachrymae	16	Gladioli	22
Cauliflower	6	Columbine	15	Ismene Calathina	23
Celery	6	Convolvulus	17	Lilies	24
Chicory	10	Coreopsis	17	Madeira Vine	23
Corn, Sweet	6	Cosmos	17	Oxalis	24
Cress	10	Cypress Vine	17	Tuberose	23
Cucumber	7	Daisy, Shasta	17	Plants	25-26
Egg Plant	7	Delphinium	17	Vegetable	25
Endive	7	Dianthus	17	Annual Flower	25
Herbs	10	Dianthus Barbatus	17	Perennial Flower	26
Kale or Borecole	7	Digitalis	17	Strawberry	30
Kohl Rabi	11	Dolichos	18	Nursery Goods	27-30
Leek	11	Escholtzia	18	Apple Trees	29
Lettuce	7	Forget-Me-Not	19	Asparagus Roots	30
Melon, Musk	7	Four O'clock	19	Barberry	27
Melon, Water	8	Foxglove	17	Blackberries	30
Mustard	11	Gaillardia	18	Bridal Wreath	27
Okra	11	Gomphrena	18	Cherry Trees	29
Onion	8	Gourds	18	Clematis	28
Onion Sets	8	Gypsophila	18	Currants	30
Parsley	8	Helichrysum	18	Deutzia	27
Peas	8	Hollyhock	18	Forsythia	27
Pepper	9	Humulus Japonicus	19	Golden Bell	27
Pop Corn	9	Ice Plant	19	Gooseberries	30
Prizes on Vegetables	9	Ipomoea	19	Grapes	30
Pumpkin	9	Kochia	19	Honeysuckle Bush	27
Radish	9	Larkspur	17	Honeysuckle, Climbing	28
Rhubarb	11	Lobelia	19	Hydrangea	27
Rutabaga	10	Marigold	19	Ivy, American	28
Salsify	11	Mignonette	19	Ivy Boston	28
Spinach	10	Mirabilis	19	Lilac	27
Squash	10	Moonflower	19	Mock Orange	27
Tomato	10	Morning Glory	17	Peach Trees	29
Turnip	10	Mourning Bride	19	Pear Trees	29
Garden Seed Price List	11	Myosotis	19	Peonies	28
Cultural Directions	13	Nasturtium	19-20	Plum Trees	29
Potatoes	14	Nicotiana	20	Privet	27
Flower Seeds	15-21	Pansies	20	Raspberries	30
Ageratum	15	Petunias	20	Rhubarb Roots	30
Alyssum	15	Phlox	20	Roses	28
Amaranthus	15	Poppy	20	Snowball	27
Antirrhinum	15	Portulaca	21	Snowberry	27
Aquilegia	15	Ricinus	20	Spiraea	27
Asters	15	Salpiglossis	21	Strawberry Plants	30
Bachelor's Button	16	Salvia Splendens	21	Tamarix	27
Balloon Vine	15	Scabiosa	21	Weigela	27
Balsam Apple	16	Schizanthus	21	Wistaria	28
Balsam	16	Shasta Daisy	17	Farm Seeds	31-37
California Poppy	18	Snapdragon	15	Alfalfa	33
Calliopsis	16	Stocks	21	Alsike Clover	36
Campanula	16	Sweet Peas	21	Fodder Cane	36
Canary Bird Vine	16	Sweet William	17	Imported Red Clover	35
		Verbena	21		
		Zinnia	21		

Write Us for Special Prices on Large Quantities



